TECHNOLOGY DEPT.

January 10, 1940

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NATIONAL PETROLEUM NEWS

Vladimir Ipatieff

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REFINING TECHNOLOGY EDITION

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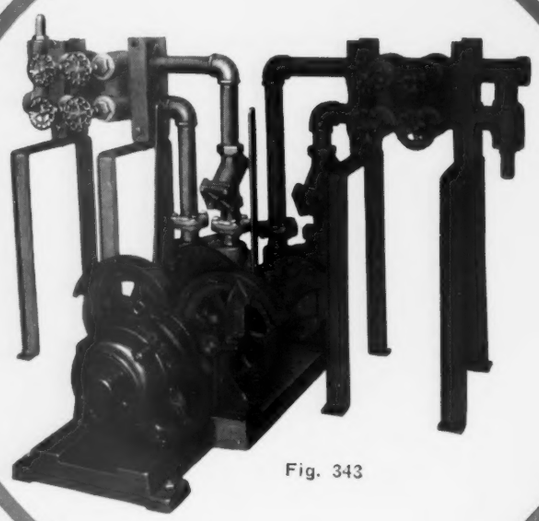

Fig. 343

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An excellent start on your modernization program is the installation of a Morrison valve control. This will be an excellent start on your program of economy, because bringing your plant up to date means saving of money for you.

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Bennett - the Pump ahead!

SEND FOR THE NEW ILLUSTRATED FOLDER

Roy Edward Collom

Top honors of the California Oil and Gas Ass'n were recently conferred on Roy Edward Collom, Los Angeles, of Continental Oil Co., when he was elected president. The association was organized in 1906 as the Chamber of Mines. In 1913, it was changed to the Chamber of Mines and Oil, and in 1928 became known as the California Oil and Gas Ass'n. The organization now has 350 members.

Mr. Collom has been in the oil and mining business since obtaining his degree in mining and geology from Stanford University in 1906. He was born Dec. 13, 1881, at Golden, Colorado.

Following several years experience in Colorado and Nevada mines, Mr. Collom started his West Coast career as a worker in the Coalinga (California) oil fields. From 1916 to 1919, he was Deputy State Oil and Gas Supervisor. The U. S. Bureau of Mines then claimed his services as petroleum technologist.

Highlights of Mr. Collom's career since 1920, include positions as chief geologist, Coast Land Co., San Francisco; executive vice-president, Marland Oil Co. of California; assistant to the president, Continental Oil Co., Ponca City, Okla.; and now vice-president of Continental Oil Co., in charge of California operations, at Los Angeles.

Mr. Collom married Yetta Florence Erhardt of San Jose, Calif., Feb. 18, 1912. They have three children, two of whom, Dorothy and Bruce, are married, while Edward is attending his father's alma mater, Stanford University.

NATIONAL PETROLEUM NEWS

VOLUME 32 WEDNESDAY, JANUARY 10, 1940 NUMBER 2

Mo-Pac Delays Rate Decision, Pending Report

By Teletype

TULSA—When division traffic men for the Missouri-Pacific Railroad wired their headquarters this week for a "status report" on the proposed Mo.-Pac. 9 to 9.50 cents a hundredweight cut (0.6 cents a gallon on gasoline) in petroleum rates along its line, the reply was much the same as that sent out the past few weeks: "No action, still awaiting announcement of Johnson's findings." Early last week, though, these reports hinted headquarter officials were "hoping to hear from Johnson any day now." But no such hope has been expressed so far this week.

So, Missouri-Pacific's proposal for reduced rates is still hanging fire awaiting decision of chairman C. E. Johnson, chairman of Western Ass'n. of Railroad Executives, before which Missouri-Pacific explained its proposal some weeks ago.

Meanwhile, some Mid-Continent shippers say they do not expect announcement of Johnson's findings until after Feb. 4, the deadline for filing briefs in Petroleum Rail Shippers' Association's plea to the Interstate Commerce Commission for "equitable" transportation charges to all shippers for all types of transportation.

While Missouri-Pacific is withholding further action on its proposal, it was believed the road would go ahead with the proposed cut even though the rail executives' findings are unfavorable.

Trainload Rate Proposal

There have been indications in the past week or so that the Interstate Commerce Commission would consider favorably a proposal—when and if may—by the railroads to reduce petroleum rates on shipments moving in trainload lots. Last month, the ICC gave its consent to trainload rates on molasses to meet barge competition.

Madison Case Up in February

WASHINGTON, Jan. 8.—Argument before the U. S. Supreme Court on appeals of both the government and the defense in the Madison oil cases will probably be held sometime early in February, court attaches said today.

Ickes Launches 'Purge' Of Interior Agencies

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Interior Secretary Ickes' determination to spare no effort, in obtaining passage of the Cole Bill for federal oil control by a "petroleum commissioner" in the Interior Department, was emphasized by a series of rapid-fire developments here during the past week. Among the most important were:

1. Beginning of a departmental "purge" with dismissal of the Bureau of Mines director, John W. Finch, because his Bureau was not as friendly to the Cole oil bill as Mr. Ickes wished, among other things.

2. Appointment of Alvin J. Wirtz, Texas oil attorney, as Under Secretary of the Interior.

3. Setting up of a five-man committee within the department to seek new ammunition—based on alleged waste in the oil industry—to present to the Cole oil subcommittee at later hearings on the Cole Bill (HR 7372).

Dr. Finch's "resignation" was not prompted entirely by the Bureau's lukewarm attitude toward the Cole Bill, according to reports. There were said to be a number of incidents in administration of the Bureau under Finch that irked Ickes.

Probably the earliest of these was the Bureau's attitude on helium exports, which was definitely stomped on by Mr. Ickes, who ruled that there should be no exports of the gas to Germany.

Later came the report of a Bureau engineer recommending against a reduction in the duty on zinc in the Canadian Trade Agreement.

During the last session of Congress, the Bureau was reported not any too friendly to the Ickes-sponsored coal mine inspection bill, which would have given Interior Department agents leave to go into any coal mine in the country to inspect it for "safety". This measure (HR 2420) still is before Congress.

Cole Bill Touched It Off

There were other incidents, but the lack of enthusiasm within Dr. Finch's Bureau for the Cole bill touched off the spark—and more "resignations" within the Bureau, and possibly within other branches of the Interior Department, may be expected any day now.

Not only did most of the Bureau of Mines witnesses before the Cole committee here in November (NPN, Nov. 8, p. 17) decline to make any recommendations as to the Cole Bill, or to discuss policy, one of the witnesses went so far as to tell the committee he could not see how it would be any easier for a federal official to enforce waste-prevention regulations than it is for the states.

A 'Fact Finder' Only

He was Harold C. Miller, senior petroleum engineer at the Bureau's San Francisco office, who told the committee he

(*Continued on page* 10)

Texas Oil Men Say Wirtz 'OK'

By Teletype

TULSA, Jan. 8.—Texas oil men apparently have no serious objections to appointment of Alvin J. Wirtz, lawyer of Austin, Tex., to be under secretary of the Interior.

Many of the oil men, both majors and independents, have expressed the opinion that if Secretary Ickes really "leans heavily" on Wirtz in matters pertaining to oil, the industry will be ably championed. They doubt that he has any leaning toward federal control of the industry.

Mr. Wirtz is a member of a large law firm in Austin which for years has specialized in oil matters and represents both majors and independents. He was a member of the State Senate in the period which saw the development of conservation in the state problems and has been closely identified with oil proration and conservation problems since that time.

Most observers in Texas see

(*Continued on page* 20)

Cole Oil Group Plans Hearings In Los Angeles

N. P. N. News Bureau

WASHINGTON, Jan. 8.—The Cole committee of the House Interstate Commerce Committee will hold hearings in Los Angeles, Jan. 16, 17 and 18, it was decided today.

Among those whom it will hear will be Governor Olson of California, and representatives of the unofficial state conservation committee there, as well as industry representatives.

The decision to make the California trip came as a surprise, particularly since it was announced that Chairman Lea of the House Interstate Commerce Committee (of which the Cole subcommittee is a part) would make the trip with the group. Chairman Cole of the subcommittee, Chairman Lea, and Rep. Wolverton, N. J., a member of both committees, are House conferees on the omnibus transportation bill, conference on which was scheduled for early this month.

However, since the Cole group is not expected back from its California junket until Jan. 22, it is certain that no conference on the transportation bill will be held until their return.

The committee announced after its executive session today that Rep. Pehr G. Holmes, Massachusetts Republican, would become its fifth member, to replace Rep. Mapes, Mich., who died at New Orleans in December in the midst of the subcommittee's hearings there.

Representatives of state regulatory agencies, who were to be heard at the New Orleans hearings, curtailed by Mr. Mapes' death, probably will be heard in Washington early in February, it is understood.

One Well Every 90 Minutes

AUSTIN, Tex., Jan. 8.—Oil well completions averaged one every 90 minutes in Texas in 1939.

The oil and gas division of the Texas railroad commission reports that oil operators completed 6671 oil wells in 1939. Number of gas wells completed has not been compiled, but is estimated at approximately 200.

Ickes Launches 'Purge' Of Interior Agencies

(*Continued from page 9*)

was a "fact-finding" employe, not concerned with policy, but said that "some of the states are doing a pretty good job right now . . . others are not so good, but they are all working toward that end."

It has been the position of the Bureau—not necessarily expressed—that it is a fact-finding and technical agency, but the Cole Bill would permit the Interior Secretary to bundle it in with the regulatory and policy-making bodies so that it would have to "find the right facts," as one observer here put it.

Ickes' Side Given

Secretary Ickes contends that he requested the director's resignation because Dr. Finch did not have "enough iron in his blood" to run the Bureau. The Secretary declared that the Bureau was being run by a little "bureaucratic clique" which had been running it since the Hoover administration, and that Finch was unable to control them.

Mr. Ickes said further that he had agreed with Dr. Finch not to reveal that his resignation had been tendered (effective Jan. 31) until after the director had located himself in another post, but, he asserted, members of the alleged "clique" let the information leak out in such a way as to appear to be "a plain attempt to smear" Ickes.

"We're hounded when we have inefficiency and don't rectify it," the Secretary said plaintively, "and then when we try to abolish it, we're hounded some more."

As for the political angle (mentioned in some stories, to the effect that Mr. Ickes had said Dr. Finch was "too gentlemanly" to Hoover holdovers in the Bureau), the Secretary declared there was nothing to it, and asserted that he did not know "the politics of a single man in the Bureau of Mines."

Secretary Ickes said he did not think he could get rid of the alleged "clique" in the Bureau, because they were civil service employes (even though, he said, they were trying to "sabotage" his policies), but that he hoped to get in as a successor to Dr. Finch a director who had "enough iron in his blood" to control them.

This statement was taken up by Chairman Ramspeck, Ga., of the House Civil Service Committee, who said he was "astonished" at the Interior Secretary's lack of information as to the Civil Service laws and regulations. He pointed out that any time the Secretary wanted to oust a Civil Service employe all he had to do was prefer charges in writing, then sit as "judge and jury" in the hearing of such charges, and do what he thought was demanded.

As yet Mr. Ickes has not indicated who he has in mind as the man with "iron in his blood" to succeed Dr. Finch, but reports from a number o sources are that Edward B. Swanson, former chief of the Petroleum Economics Division of the Bureau and now associate director of the Petroleum Conservation Division (Connally law administrative agency) is slated for the post.

It is known that Mr. Swanson has been close to Mr. Ickes on oil matters ever since he was borrowed from the Bureau in 1933 to become associated with the Petroleum Administrative Board, and his elevation to associate director of the Petroleum Conservation Division after the NIRA folded up, is indicative of this. Also, it is understood, Mr. Swanson had more than a small part in drafting of the Cole Bill which has caused, in part, the current upheaval within the Department, and was believed in some quarters to have been slated for the post of Petroleum Commissioner to be set up under the Cole bill—if passed).

'Resigns'

Dr. John W. Finch

Irked

Secretary Ickes

Wirtz Introduced

Mr. Wirtz, the new Under Secretary of the Interior, was introduced to the press on the same day that Secretary Ickes gave his version of the Finch ouster (Dr. Finch has declined to talk).

At this meeting with the press, the Interior Secretary said he intended to "lean very heavily" on the Texan where oil matters were concerned. In a press release announcing the Wirtz appointment, the Department said he had participated in oil litigation in Texas, and was "familiar" with the Connally law.

It is further reported here that Mr. Wirtz was engaged in a lawsuit as a legal representative of a major oil company in a suit against the State of Texas at the time his call to Washington was received, and that the case in question had to be postponed because counsel for the oil company came to Washington to take the new job.

Appointed

Alvin J. Wirtz

The third phase of the Department's effort to shove through the Cole bill at all costs is the appointment of the intradepartmental committee, headed by Hale B. Soyster, head of the Geological Survey's Leasing Division, to hunt up

Ickes' Statement Draws Fire Of Civil Service Officials

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Interior Secretary Ickes' declaration that a certain "bureaucratic clique" within the Bureau of Mines was running the Bureau and that he dare not discharge them because they had "life tenure" under Civil Service regulations, has aroused resentment in official quarters.

First of all, the Civil Service Commission, and chairmen of Civil Service committees in Congress, issued statements declaring that the secretary was misinformed.

The Civil Service Commission went even further, saying:

"Such statements by high ranking administration officials can have no other effect than to unjustifiably discredit the federal merit system."

Declaring that the assertions that Civil Service employes have a "life tenure," the Commission, in an unprecedented release to which was signed the names of all members, said it had no basis in fact, and added:

"In recent years one of the 'favorite untruths of the spoilsmen' (a phrase used in a report made when Theodore Roosevelt was a member of the commission) is to allege that a person who receives a classified civil service status remains on the payroll for life.

"An administrator who desires to remove an employe in his department who is inefficient and who seeks to obstruct the established policies of the department has all the leeway any one can ask for. He is both the judge and the jury. . . .

"Any administrator who alleges that it is impossible for him to deal with an administrative situation in his own agency because of civil service rules or regulations is attempting to explain his own unwillingness to act by providing the public with misinformation."

All of this may be because the Secretary has his own candidate, duly equipped with "iron in his blood," to take over the Directors' post, according to Washington observers.

new arguments, on the basis of "waste", to present to the Cole committee in support of the alleged necessity for federal oil control.

It is understood the committee is raking through every bit of evidence it can get its hands on of "waste" now allegedly prevalent in oil production and thus "need" for the federal control bill.

Mr. Soyster, it will be remembered, was about the only witness from the Interior Department (aside from the secretary himself) who showed any enthusiasm for the Cole bill at hearings here in November (NPN, Nov. 15, p. 18). Other members of the "waste hunting" committee include A. G. White, head of the Petroleum Economics Division, Bureau of Bureau (who also appeared before the Cole committee but said that on discussions of policy connected with the bil' the committee would have to consult those who were "advocating it"); R. A. Cattell, head of the Bureau's Petroleum and Natural Gas Division; David Speck, attorney in the secretary's office, and a representative of the Petroleum Conservation Division.

Activities of this committee lead to the belief that the Interior Department, which has already had one hearing before the Cole committee with respect to the pending bill, aims to seek another to present its additional evidence. Plans of the committee at this time, so far as announced, do not call for this added appearance by the Department.

Ickes Urges Probe Of Federal Courts Under Connally Law

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Interior Secretary Ickes hopes "there will be a full, free and fair investigation" of the administration of the Connally Act in Texas "so far as the federal judiciary there is concerned," he said in response to questions at a recent press conference.

Ickes referred specifically to his recent interchange of correspondence with Federal Judge Wilson, Fort Worth, concerning the latter's dismissal of Rene Allred and Neal Powers in a Connally law case. He said he had received one letter from Judge Wilson since the much-publicized interchange of last month (NPN, Dec. 13, page 26), but declined to reveal its contents, saying that "he'll accuse me of trying to embarrass him by giving out information."

Virginia Fire Men Seek Law Requiring Dyking Bulk Plants

RICHMOND, Va., Jan. 4. — The Fireman's Ass'n of Virginia has developed a legislative program which, among other things will require dykes around all gasoline and oil storage tanks, require the appointment of local fire marshals to inspect hazards with authority to order them corrected as well as giving the state fire marshal the same power, and to "regulate" the transportation of gasoline through city streets and highways.

A bill requiring dyking of all bulk plants was prepared for the 1936 session of the state legislature, but was not introduced. It called for a retaining wall to be constructed around each tank. This bill also required these dykes to be constructed according to specifications of the state fire marshal and built by contractors approved or licensed by him. It is expected that the new bill will contain the same provisions.

The other proposal would empower municipalities to prohibit, route and regulate transportation of gasoline through streets. This would probably mean the limitation of capacity as well as other restrictions.

Patent Probe Delayed

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Justice Department sources revealed to NATIONAL PETROLEUM NEWS today that the grand jury investigation of patents in New York federal courts (which may include cracking patents, among others) probably will not get under way until late this month or early next month. (Earlier story in NPN Dec. 13, p. 27.)

Rankin Pleads Guilty

NEW ORLEANS, Jan. 8.—William G. Rankin, former Louisiana commissioner of conservation, has pleaded guilty to a federal charge of mail fraud in connection with presentation of a "gift yacht" to former Gov. Richard W. Leche.

Rankin, as conservation commissioner, had charge of enforcement of the state's oil conservation laws. The man he had named to direct oil proration affairs was found in his bathroom fatally wounded by a gun shot a few hours after he had returned to his New Orleans home from Dallas, where he had testified about Louisiana affairs.

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Shell Hikes Ratings Of Its Gasolines

N. P. N. News Bureau

CLEVELAND, Jan. 9.—Latest among the large oil companies to boost octane rating of its regular grade motor fuel is Shell Oil Co., Inc. This company used the Sunday newspapers Jan. 7 to announce "Startling New Developments in Motor Fuel."

When called by NATIONAL PETROLEUM NEWS for details on these developments, P. E. Lakin of St. Louis, vice-president in charge of marketing for Shell said the announcement covered the mid-western marketing territory of Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, parts of Iowa and Missouri, and the southern territory of Kentucky, Tennessee, Mississippi, Alabama, Georgia, Florida and Louisiana.

This executive declined to discuss, however, what the developments meant in the way of higher anti-knock ratings or other changes in specifications. He said that octane ratings as now determined by five different test methods were extremely confusing and did not mean much unless other factors were known and taken into consideration.

In announcing advances made in the performance of both its regular grade and premium grade gasolines, Shell Oil Co. called attention to its "balancing" manufacturing process, under which, it said, no one essential property of motor fuel is emphasized at the expense of some other property. It claimed that "in starting,, shifting, accelerating, or steady traveling, every drop of motor fuel is completely usable."

From New Processes

Important in indicating the manufacturing methods used to produce the new fuels, was the statement the new Shell premium gasoline "comes straight from the same scientific research that produced the first 100 octane gasoline—the gasoline used in today's racing planes."

As a leader in "reforming" gasolines to improve their quality by rearrangement of molecular structure, and in the development of 100-octane aviation gasoline, Shell has been active in developing motor fuels designed for the modern high compression engines.

A factor which may be contributing to the development of higher octane motor fuels by Shell at this time, is that the company has gone farther than any other refiner in the construction of alkylation plants.

Today it has in operation four of these plants for the production of aviation fuels or motor fuel blending stock. Location of these plants and their capacity to yield "Alkymer" of an 80 to 100 octane rating—depending on the raw materials used—is as follows: Wood River, Ill. and Houston, Texas, 1500 barrels a day each; Wilmington and Martinez, Calif., 600 barrels a day each, a total output of 4300 barrels daily.

With large refiners now announcing higher octane and "new-performance" motor fuels, oil company laboratories are testing the characteristics of these new fuels.

Octane Rating Tested

A study of test reports on regular grade gasolines marketed by nine major oil companies in the Cleveland territory on Dec. 12, showed the average octane rating was 2.1 numbers higher by the ASTM test method than for comparable products of these same companies in January, 1939.

Samples picked up from service stations in December gave an average ASTM octane rating of 73.6 and a 1939 C.F.R. or Research Method average rating of 78.4. The range indicated a high of 75.0 and a low of 72.2, ASTM, and a high of 75.0 and a low of 72.2, ASTM, and a high of 80.1 and a low of 75.4, C.F.R. That is, the spread between the highest and the lowest was 2.8 octane numbers by the ASTM method and 4.7 by the C.F.R. method.

In January, a year ago, samples of regular grade gasoline sold by the same companies gave an average octane rating of 71.5 ASTM (no figures were available for CFR ratings). The lowest octane at that time was 70.3 and the highest 73.0.

It is of interest to note that the fuel with the lowest octane now being marketed in the Cleveland area by the nine companies is within .8 number of the highest rating shown by any of the fuels tested a year ago.

Just as important to some observers as the boost in octane is the change now being made in other motor fuel characteristics. This change also, reflects advantages inherent in some of the new blending stocks used to improve anti-knock rating.

It was pointed out that one company, which formerly marketed a regular grade gasoline with an end point of around 390, and sometimes as low as 379—generally considered too "light" for economical performance—had now raised the end point to above 400, and occasionally as high as 420. This company was among those which recently announced new anti-knock properties and improved performance of its motor fuel.

This improvement in the "back-end" of the gasoline, without reduction in anti-knock performance, points to further use of the heavier or power-producing fractions with an increase in car performance and gasoline mileage, observers say.

Tests last week by the L-3 method on samples of regular-grade branded gasolines marketed in the Chicago area, showed a minimum of 71 octane and maximum of 77.5, with the majority within a range of 73 to 73.5, it was reported. Compared with tests made several months ago with the same test methods, this was said to be an increase of 3 to 4 points in octane number for some brands. Analysis of premium-grade fuels from the same retail outlets showed several with 82 octane ratings, some with 80 and others at 81, it was reported.

Aviation Fuels Are Factor In Octane Increases

How a surplus at refineries in this country of base stocks suitable for making high octane aviation fuels is now being used to improve the motor fuels marketed by some companies is told in a special article starting on page 25. These aviation fuel base stocks come from plants operating on new processes which were primarily developed to meet an anticipated heavy war demand for aviation fuel which so far has not materialized.

Convention Program Listed For Northwest Association

MINNEAPOLIS, Jan. 8.—The tentative programs for the Northwest Petroleum Assn. conventions this month were announced last week by Elwin E. Hadlick, president, listing addresses on evaporation, salesmanship, and truck and rail transportation.

The North Dakota division convention, at Fargo, opens with a round table discussion for marketers on the morning of Jan. 22. The following addresses are scheduled for the afternoon:

"Tying The Loose Ends of Salesmanship," by Wesley E. Keller, Minot, N. D., vice-president of the Truax-Traer Coal Co.

"Let's Hire Another Man," by R. S. Roach, Fargo, the Burroughs Adding Machine Co.

"Evaporation Losses At Bulk Plants," by Dr. Carl G. Anderson, Chicago, the Armour Institute of Technology.

"North Dakota Today and Tomorrow," by Dr. Frank L. Eversull, Fargo, president of North Dakota Agricultural college.

The division's annual party and entertainment will be on the evening of Jan. 22.

Two Talks on Transportation

Two addresses on transportation are scheduled for the morning of Jan. 23, followed by committee reports and the convention closes with a board of directors meeting. The addresses are:

"Petroleum Transports," by Charles Yokom, Detroit, vice-president of the Petroleum Transit Corp.

"Oil On The Railroads," by Joseph H. Hays, Chicago, counsel for the Western Assn. of Railway Executives.

Minneapolis Meeting Jan. 25-26

The Minnesota division convention opens, at Minneapolis, on the morning of Jan. 25 with a roundtable discussion for marketers. At the afternoon session Dr. Anderson and Mr. Keller will give their addresses and in addition there will be two other speeches:

"Common Problems," by Arthur B. Anderson, St. Paul, director of the state petroleum division.

"Practical Tests for Petroleum Products," by M. A. Peterson, St. Paul, chief chemist of the Minnesota State Highway Department.

The annual beefsteak supper and entertainment will be on the evening of Jan. 25.

A second round table discussion for marketers will be held on the morning of Jan. 26. After luncheon there will be a business session, the addresses on transportation by Messrs. Yokom and Hays, reports of committees, and the convention will close with a directors meeting.

Murphy Expected to 'Sit Out' When Madison Cases Come Up

N. P. N. News Bureau

WASHINGTON, Jan. 8.—U. S. Supreme Court Justice Frank Murphy (when confirmed) is expected to disqualify himself from consideration of any phase of the Madison oil cases, because of his connection with the cases while attorney general, according to most legal sources in Washington.

Hence, it is believed, the four-to-four decision voted by the high court in November (NPN, Nov. 29, page 6), upholding the refusal of the Circuit Court of Appeals to issue a writ of mandamus against Judge Patrick J. Stone, Madison trial judge, will stand.

Only a short time after the Supreme Court's four-to-four decision was announced, Justice Department petitioned the tribunal for a rehearing and reconsideration of the case after the ninth member of the court was appointed. If Justice Murphy disqualifies himself, as is anticipated (NPN Nov. 29, page 6), the four-to-four decision will stand, and the writ will not be issued.

Justice department sought the writ on the ground that Judge Stone exceeded his authority in dismissing certain defendants in the Madison oil cases on July 19, 1938 after they had been found guilty by a jury. The Department's petition for a rehearing has not yet been granted.

Pending also in the supreme court is the government's appeal from the circuit court's decision ordering new trials for remaining defendants.

California Fuel Cut to 75c, But Shipment East Unlikely

N. P. N. News Bureau

LOS ANGELES, Jan. 5.—When the Standard Oil Co. of California this week announced a 15-cent reduction in the posted price of fuel oil, effective Jan. 1 at all seaboard points, except San Diego, West Coast oil men were generally reported disappointed in view of the fact that "California's curtailment picture is the best ever."

Previous to Standard's decision to reduce its posted price, several contracts were reported signed by other major oil companies at prices from 10 to 15 cents below prevailing postings. Low-price contracts obtained by two steamship lines were mentioned.

One bright aspect of the price change was seen by one oil man who described the situation as making it "probable" that differences now would be lessened between actual and posted prices.

East Coast Movement Unlikely

Although eastern seaboard quotations for bunker fuel are reported in the neighborhood of $1.50 a barrel, contrasted with the West Coast's new price of $0.75, no intercoastal movement is considered likely, for two reasons: charter rates are too high, and ships are not available.

With California's crude production curtailment program showing results, a 5 per cent reduction in fuel oil stocks has been made since these stocks reached a high last July. However, about 10,000,000 more barrels of fuel oil are in storage on the Pacific Coast at this time, than in January, 1938.

Effect of the newly reduced prices in the Los Angeles area show major company quotations for heavy fuel at $0.75, previously $0.90; and light fuel at $0.85, previously $1.00. Grade "C" fuel oil in ships' bunkers is now quoted at $0.75, previously $0.90, with cargo lots in the neighborhood of $0.75, with some quotations even lower.

Quotations generally being made by independent companies are understood to be as follows: In ships' bunkers (Grade "C") $0.725 to $0.75; and cargo lots, $0.60 to $0.65. Previously, some independents were quoting Bunker "C" prices between $0.85 and $0.875 a barrel.

Mexican Probe Bills Die

WASHINGTON, Jan. 8.—Senate today "passed over" the resolutions of Senators Bridges and Neely (S. Res. 174 and S. Res. 177), introduced at the last regular session, providing for a Senate inquiry into alleged participation of U. S. citizens into the Mexican oil expropriation and subsequent sale of expropriated oil. Both resolutions had been reported adversely by Senate Foreign Affairs Committee. No further action is anticipated.

Indiana Meeting Is March 6-7

INDIANAPOLIS, Jan. 8.—The annual convention and exhibit of the Indiana Independent Petroleum Ass'n. will be held March 6 and 7 at the Hotel Severin, Indianapolis, Secretary George W. Hofmayer has announced. Program of the 1940 meeting has not yet been completed.

Explosion Damages Plant

TULSA, Jan. 8.—An explosion, followed by fire, wrecked the engine room of the Barnsdall Oil Corp.'s natural gasoline plant near Earlsboro, Okla., the night of Jan. 6. Six men were at work near the engine room at the time of the blast but escaped injury. The plant has been manufacturing butane.

Anti-Trust Charges Denied By 6 More California Firms

N. P. N. News Bureau

LOS ANGELES, Jan. 5.—Six more California oil companies pleading not guilty here this week to an anti-trust indictment returned last Nov. 14, with 23 other defendants filing demurrers.

Companies pleading not guilty now total nine. The six pleading not guilty this week were Exeter Refining Co.; Fletcher Oil Co. Inc.; General Petroleum Corp. of California; Gilmore Oil Co.; Norwalk Co.; Shell Oil Co., Inc. The three companies which previously pleaded not guilty were Eagle Oil and Refining Co.; Mohawk Petroleum Corp.; and Petrol Corp.

All defendants filed motions for bills of particulars, and the following companies and two trade associations, filed demurrers: Fair Practices Association (Petroleum Products); Independent Refiners' Association; Aromalene, Inc.; Bush Oil Co.; California Oil and Refining Co.; The Caminol Co.; Century Oil Co.; East West Refining Co.; El Camino Refining Co.; El Tejon Oil and Refining Corp.; Envoy Petroleum Co.; Estado Petroleum Corp.; Harbor Refining Co.; Kern Oil Co., Ltd.; Mercury Petroleum Corp.; Olympic Refining Co.; Pan Pacific Oil Co.; Rothschild Oil Co.; Socal Oil and Refining Co.; Triangle Oil and Refining Co.; White Star Oil and Refining Co.; Seaside Oil Co.; and Sunset Oil Co.

Grounds of Demurrer

Demurrers were filed on general grounds that indictment did not present sufficient facts to charge oil companies and trade associations with conspiracy to raise and to maintain gasoline prices in violation of federal statutes. Furthermore, it was said that indictment was vague, indefinite, and uncertain.

Those not entering pleas, pending ruling on the various motions were Hancock Oil Co. of California; Macmillian Petroleum Corp.; Richfield Oil Corp.; Rio Grande Oil Co., Inc.; Standard Oil Co. of California; Signal Oil Co.; The Texas Co.; Tidewater Associated Oil Co.; Union Oil Co. of California.

Federal Judge Paul J. McCormick set Feb. 13 as the date for hearing on the demurrers, and Feb. 27 for arguments on the bills of particulars.

Attorney Roland G. Swaffield represented 21 of the 41 defendant oil companies and trade associations. M. S. Huberman, federal attorney, appeared for the government.

TNEC Cites Prices Of Penn Lubes, Wax In War Price Study

By Teletype
N. P. N. News Bureau

WASHINGTON, Jan. 9. — Price increases in Pennsylvania oils and wax, as well as in fuel oils, are cited by Temporary National Economic (Monopoly) Committee as typifying "the need for continued scouting of markets" in a release to the press.

TNEC points out that Pennsylvania cylinder oil prices increased 91 per cent, neutral oil by 67 per cent, and wax by 165 per cent between Aug. 26 and Dec. 30, and adds, "sharp rises in shipping rates between Gulf ports and points on the Northern Atlantic Seaboard are said to have affected the prices of a number of products, such as superphosphates and fuel oil."

Although there has been no official announcement, it is understood TNEC plans to inquire into prices of fuel oil and other petroleum products where there have been increases since the start of the European War. In its official release, the Committee says:

"Consequently the relative stability of the general commodity price level, while gratifying, gives no cause for complacency. The steep increase in commodity prices during the World War did not start until more than a year after August, 1914. The period of most critical need for alert and co-operative action on the part of business and government to keep prices in balance is just ahead."

The Editor's Page

Readers Comments and Opinions will be much appreciated by—
Warren C. Platt
Editor and Publisher
Penton Bldg., Cleveland, Ohio

Is this Gasoline "Surplus" Fictitious

The oil industry seems to be getting into its annual dither over the "height" of its stocks, particularly of crude oil and gasoline.

Prognosticators are viewing with their perennial alarm, a slight increase in gasoline stocks as well as a rise the past few weeks in crude oil stocks after a year of almost record breaking reduction in those same stocks. And oil producers are resoluting valiantly for further reduction in crude oil allowables in the states that sport such gadgets.

The stage has been thus appropriately set so that now the prophets reappear for their annual second act and they are now peering expectantly—that is a more accurate word we believe than fearfully—down the calendar to "M" day, which for some years now has always been set as of March 31st. On this day gasoline stocks simply must be down to the level as set by the prophets or, the industry will be forced to "enjoy" poor gasoline prices all summer long.

Prophets are valuable in industry these days and the statistical men, who have come into the oil industry of rather recent years, have done much to help the thinking of the industry. But for several years we have been wondering if these economists should not try and dig up a few new lessons now that they have the industry pretty well educated on the primary class work of economics, which might be said to consist of belief in the law of supply and demand. If they don't their art will stay at the level of that of the palmists who may be able to tell you what will happen but they cannot make anything happen.

What the oil industry has to make "happen" are some profitable prices. We have yet to be convinced of the argument of so many who look at statistics, that prices cannot be good until there is a "balance" between supply and demand and that when that "balance" at last comes prices will at once automatically become profitable.

It has been our contention that prices are decidedly man-made and that when the economic utopia arrives man will have to make his prices profitable because we do not believe that they will just happen, as a gift from On High. It also has been our contention that perhaps somewhere this side of such a utopian moment, if enough oil men got their accountants to figuring up some profitable prices and then sent their salesmen out with those prices and told them not to waste any time resting by the side of the road until they heard the horn blow announcing the arrival of utopia, that the chances are at least most of the GOOD salesmen who were armed with the right sales talk would beat the arrival of utopia by a few weeks and bring home the orders at the profitable prices.

But we are told that this is not sound economics, although we have also heard from some men who could make salesmen sell most anything at their own price, that nevertheless, this is "good selling." Selling, we have been told by some of the low brows who did not always go to college, was convincing the customer that what you had filled the customer's needs perfectly and that the price you were asking was dirt cheap, and then seeing that the product you gave the customer lived up to all that you promised and made the customer happy. There used to be a hardware peddler out St. Louis way who preached that "Recollection of the Quality remains long after the price is forgotten." He finally ran his hardware peddling, by using this text, into quite a few million of dollars a year.

Maybe it is a little late for the oil industry to get up some resolutions for new behavior for 1940. However, the industry will probably be "enjoying" the jitters over what "M" day will bring for a couple of months yet, so perhaps in that time the industry could discuss a 1940 resolution.

Prognosticators Set Stocks for 'M' Day

That new thought might well be that the statistics and economics be turned over to the top operating executives, along with some sound advice as to how to take them. Then let the sales departments go out and sell for a while, unhindered by constant prophecies, that arm their buyers, of "too much gasoline"—"My God, the industry (always the industry) must cut back its runs" and "Ain't it terrible, Nellie, we are likely to have 6 million barrels more gasoline above 'M' quantity on 'M' day? Why ain't you heard? 'M' quantity on 'M' day is what the statistical docs say we got to have or else all the buyers will refuse to pay anything but a losing price and it really won't be no use of the boys trying to go out and sell because we all know we will just have to give the stuff away and there ain't nothing we can do about it until 'M' day next year comes around and then we can get another crack at the bullseye."

Yes, sir, most every year for some years now, all the top hats of the oil industry and the prognosticators and every one else, with the buyers making a loud joyous chorus, have been spending all the early winter months assuring our sales departments and the boys with the sample cases of bottles and good advertising literature, that we are going to miss the bullseye again and so it isn't any use trying to sell. Every one becomes convinced that he can't sell except "at the market." Then it isn't long before more and more become convinced by the well-armed buyers, that he can't sell except at "a little under the low," and the proof offered of it all is that we missed the bullseye on "M" day.

First it might be well to find out just who set the bullseye where it is on "M" day and why did they set it there?

This year the bullseye is set at "80 to 82 million barrels" of gasoline stocks for March 31st. Right now with the jitters already on us, we are told our stocks today are "too high." The last figure I have handy to this typewriter is of Dec. 24th, 1939, as against Dec. 23rd 1938. That shows 78,707,000 bbls. for 1939 as against 75,553,000 bbls the year before. The latest estimate of net gasoline demand on refineries for 1939 as against 1938, is 4.4% increase, so, if one were to assume that such an increase in volume

of gasoline handled by the whole industry might call for more stocks, and add 4.4% increase to the stocks we come out with 78,877,000 bbls. as against an actual stock figure of 78,707,000 bbls.

It might be fairly reasonable to assume that the more goods you have to handle, the more supply you might have to have on hand?

Then, in thinking about a new year resolution, we might take a look to see just who has this great (?) increase in gasoline supply? Is it some poor little refiner who has to sell every barrel he makes every day in order to get money to meet his payroll, or is it a company that is generally supposed to have enough money to get along on?

20 Companies—90% of Stocks

The TNEC (anti-monopoly committee) at its hearings this fall received a report from economists of the Department of Justice, summarizing much data given the department by the major oil companies. That analysis of this major oil company data showed that, as of the end of 1937, 20 leading majors held in their own storage 90% of all the country's gasoline stocks. This was the high of a steady increase over the previous ten years from 84%. The same percentage roughly held as to other stocks, such as the majors held 96.5% of all the crude oil stocks, 91% of all the kerosine stocks and 88% of all the gas oil and distillate stocks.

It would therefore appear that nearly all the stocks over which the oil industry has an annual case of jitters, is safely in the storage tanks of the oil companies which are best able to finance that storage and never worry about it.

The majors are well equipped with statisticians and experts of all kinds so they know what they are doing, they know the state of their storage as well as the condition of their bank balance. They are so well equipped with experts that they make long range prognostications of just how much of this and that they will need during the year and at what points. In fact they do such a good job that some of them have their production departments planning several years in advance to get the necessary crude oil.

Not all of the majors can be disturbed at their gasoline stocks, either in 1937 nor at the present time, because it is well known that some of them for a great many years have always marketed more gasoline than they could produce and have been steady buyers from the small refiners.

It would seem that whatever condition the storage tanks of the majors are in at the present or any other time, as regards gasoline and other refinery products, that they pretty much "planned it that way," even though the sum total of their stocks causes the industry to miss the bullseye on "M" day.

It is possible that this winter's gasoline stocks ran up a bit higher than was expected because of quite a good demand for heating oils and diesel engine fuel. While gasoline demand at the refineries increased 4.4% in 1939 and is continuing at about that rate today, gas and oil and distillate demand is running 10% higher right now according to the U. S. Bureau of Mines. In making such an increased quantity of gas oil the industry consequently makes a greater increase in its gasoline output than the 4% to 5% of increased demand.

The answer would seem to lie in cutting back the gasoline yield a trifle, if any company has too much gasoline on hand. Again the majors are the ones which are chiefly at interest because their gasoline yield in 1937, according to the figures the Department of Justice received, was 48% of the crude run while the Independent refiners had a yield of only 43.8%. If the gasoline yield was reduced 1% on the total crude as forecasted for this January, which means increasing the gas oil yield 1% of the total, that would reduce the gasoline output 3½ to 4 million barrels a month which, by "M" day the end of March, would keep the industry fairly well near that bullseye. And there would be plenty of gas oil for the demand.

For the past ten years the industry has been shifting from aboveground storage

THE READERS' FORUM—ON—

Government's Relations with THE READER'S Oil Business

Contributions are invited. Please address them to the attention of Warren C. Platt, Editor.

Should Today's Suppliers be Protected Against the Entry of Newcomers?

Following letter was received from the sales manager of a large oil company, who asked that his name not be published:

"I want to express my satisfaction at the kind of an editorial that you wrote on December 6th under 'Present Changes that Sweep Oil Marketing Were Heralded by Signs that Few Seemed to See.' It seems to me that all trade publications ignore fundamentals that are irresistible in their nature, and tend to deal entirely too much with 'pimples' instead of 'symptoms.'

"It seems to me that you might follow some of your leads considerably further. For instance, you say:

'How about all the truck transports that have served this market for years and held it for the Independent refiners of Kansas? Will this possible new Nebraska field be allowed to wreck the retail markets and thus shut out and maybe shut down some of the Kansas refiners who have been providing competition for the Nebraska marketers' business?'

"All this raises a very serious question that goes to the very fundamentals of our social order. Because an institution may have rendered a real service, is there any protection that should be given it when its usefulness is over? Should we have preserved the blacksmith shops because over thousands of years they certainly did make a real contribution?

"Conceded that it is very disastrous to the existing order, as represented by truck transports from Kansas, might it not be equally disastrous to a lot of industries using gasoline in Nebraska who otherwise might avoid bankruptcy and extinction. In other words, where 90% of all businesses fail sooner or later, does not the lowering of costs tend to reduce these failures.

"To put it another way, do we not have to become Industrial Statesmen and look beyond our own industry in determining our policies? If we go to the Government to get protection for Kansas truckers, by doing so have we not endorsed Mr. John L. Lewis and every other high-pressure group which is seeking special favors at the expense of the consumer.

"In conclusion, was not the depression of 1929 brought about more by the fact that these high-pressure groups of one sort and another had become too successful, and many classes of consumers could no longer sit in the poker game—they had simply run out of chips."

Lurio Will Answer Questions

Dear Editor:

Thanks very much for printing my "open letter" to Sen. O'Mahoney, in Dec. 20th N.P.N. (Page 15.)

I find an error in the tenth paragraph, which also appears in my original manuscript. This paragraph should read:

"There is nothing undesirable about competition if no one has any monopolistic advantage over another."

The words "or price-fixing" after "competition" obviously contradict the central theme. My opinion is that price fixing is undesirable under any circumstances.

If not too much to ask, I trust you will call attention to my error and reprint paragraph correctly.

Sincerely,
M. S. Lurio.

P.S.—Will be glad to amplify or explain any ideas advanced if there is any call for such amplification.—M. S. L.

to underground stocks. This change is being brought about by the conservation laws which make it possible for the owner of the oil to keep it in the ground under the best of natural conditions at lowest cost and without waste, and quite generally without fear that a neighbor will "steal" it.

In these years the industry has reduced its aboveground crude oil storage from a high point of 428,000,000 bbls. at the end of 1929 to a low of some 236,000,000 of refinable crude the end of this December. In that period the industry has been troubled with the biggest oil field in history but it also has enjoyed a steadily increasing market. Present crude stocks, Col. E. O. Thompson, veteran oil expert member of the Texas Railroad Commission, says are just about as low as the industry can get them and keep operating comfortably.

Controlling the flow of oil to market, from the wells old and new as they are drilled and from the refineries, never will be an exact science so that the amount of oil offered the market will match to a barrel the demands of the market. The oil industry is too large, covers too much territory, has too many variables in it of wells, oil sands of still unknown characteristics to expect to hold the production of oil down to the last drop of demand. Then this demand varies even unexpectedly with the weather, with shipping conditions and with the ideas of marketers and station managers as to how much product they will want at a given time. And on top of this are all the different kinds of human beings running and working in this oil industry, men of different abilities and different ideas of what is going to happen, as well as different ideas of price and ability to get it.

Management has Control of Stocks

Why then try and put this oil industry, that produces and consumes more than a billion barrels of oil a year, down on paper and try to make everything in it balance with seeming supply down to the last gallon? Or why hold up against its operations, such as its gasoline stocks, a purely arbitrary standard of "economic stock level" which is solely the opinion of a few men, at best? Men who represent MANAGEMENT that can control stocks, and not the sales departments?

The "estimates" of demand and of "economic stocks" were only intended to be rough guides so that a producer or a refiner would not think that he might have the only supply of excess stocks on hand and so could "dump" it without any competitor "knowing" it. These "estimates" have served an excellent purpose in teaching each oil man that he has to consider the others in the industry and their stocks of products when he thinks about selling and price. The men who have gotten up these estimates have done an excellent job and they are to be commended by the whole industry.

But the industry is not doing these men justice, nor itself, when in its conversations and in the "official statements" the industry takes the position that these "estimates" must be met to the last drop or else there will be no chance in the world of getting a good price.

"Surplus" stocks are "surplus" mostly if the owner thinks they are, not what some one else thinks. If the owner thinks an extra barrel is "surplus" and if he further thinks, from hearing all the cries of "surplus, surplus, surplus" in the market places, that he can only sell at a low price, and if the buyer also hears those cries and thinks the same thing, then that measly extra barrel will be a disastrous "surplus" on the price.

The day was when the very small refiner was an important percentage of the country's supply and he was not always able to store even an extra barrel. But in those days the small refiner was without production, consumption and stock figures as well as generally without money and steel tanks.

But today the small refiner is mostly a large refiner, competent, a student of business conditions and able to run his plant according to a plan for anticipated demand. In addition to him is the very large refiner who is running 80% to 85% of the crude and who also is more and more active with his prices in the tank car and barge and tanker markets. The refining capacity that is not fairly well financed and whose owners know what they are doing, is but a small fraction of 1% of the country's total capacity, and that fraction is out at a crossroads where trucks lug its nondescript products a few miles roundabout.

Why then all this terrible dither about a few barrels of oil and gasoline more or less? There isn't a single company that makes the alleged "surplus" that does not know what it is doing, or at least in view of their success in other ways we must assume that they know. And there isn't a single company that if it could not market its "surplus" at a reasonable price but could cut back its runs and hold that "surplus" until the market could absorb it at a fair price.

How does a "surplus" happen?

If a "surplus" exists because a sales department, after making a careful estimate of what it can sell AT A PROFITABLE PRICE falls down through fault clearly of its own, then is not the answer to get a new sales department rather than tell the waiting buyers that you are going to sell your products at a loss and wreck the markets for every one?

If the "surplus" exists because the producing department had overproduced or the refining department had manufactured more than the quota assigned to it as a quota that the sales department could sell AT A PROFIT, then the "surplus", it would seem, should be corrected within those departments, either by cutting back or providing storage AT THE COST OF THOSE DEPARTMENTS.

But instead of making the offending department responsible for "surpluses" the average oil company crowds the extra amount onto the sales department and makes it move the "surplus" which, of course, it generally only can do by cutting the price so as to steal gallonage that some one else had figured on supplying at a profitable price.

"Surpluses", it would seem are the problem and the FAULT of management and not the problem of SELLING. If the oil industry today—the 20 major companies who have 90% of the gasoline in storage—are manufacturing an excess of gasoline because of the increased demand for heating oil, that certainly has no relation whatsoever to what the price of gasoline is now, will be this spring or this summer—UNLESS MANAGEMENT decides to ask the sales departments to get rid of it, instead of requiring the refining department to hold and store it.

Sales departments can only make a profit, and can only be expected to do so, on the volume of products it can sell at a profit. Sales departments, certainly cannot make a profit on selling the operating mistakes of other departments. Markets will only take so much goods AT A PROFIT.

Today's alleged "surplus" of gasoline is either the fault of management in regulating the refining department, or else it is a slight overage above a largely hypothetical standard of what is a healthy mark for the industry to shoot at. If this "surplus" is the former then the gasoline should not be handed the sales department to sell. If it is the latter then this gasoline should not be called a "surplus" in the sense that the buyer generally thinks of the term, and it still should be held safe in the refining department until PROFITABLE demand calls for it.

In either event, there is no reason whatever why that gasoline should have the slightest adverse effect on reasonable prices.

Rufus C. Dawes Dies

CHICAGO, Jan. 9.—Death took its first toll of the four Dawes brothers when Rufus C. Dawes, 72, died suddenly yesterday in his Chicago home following a heart attack late last week.

Mr. Dawes, a civic leader and banker here, was president of the Chicago Century of Progress in 1933-34, the first World Fair to be successful financially, and then became president of the Museum of Science and Industry in Chicago.

Two of the four brothers are prominent in the oil industry, Henry M. Dawes, of Chicago, is president, and Beman G. Dawes, of Newark, O., is board chairman of the Pure Oil Co. The other brother, Charles G. Dawes, of Chicago, was vice-president during the Coolidge Administration and a former Ambassador to the Court of St. James. Two sisters also remain, Mrs. Harry Hoyt, of Jacksonville, Fla., and Mrs. Arthur Beach of Evanston, Ill.

Immediate survivors are his wife, three sons, William M., Charles C., and Palmer Dawes; three daughters, Mrs. Louis Watermulder, Mrs. Robert T. Sherman, and Mrs. Beverly Jefferson, and six grandchildren.

Mr. Dawes was born in Marietta, O., and came to Chicago in 1897. He was president of Dawes Brothers, Inc., organized in 1908, to handle the family's many investments. Services will be held in Evanston Jan. 10, with interment in Marietta, O.

Oil Transportation News

Latest developments in freight rates, legislation, regulations, and new construction affecting transportation of petroleum products by truck, barge, tanker, pipeline, and railroad.

Tanker Rates are Unchanged But Break is Not Expected

By Teletype
N. P. N. News Bureau

NEW YORK, Jan. 9.—After rising steadily from week to week for the past four months, and now resting at all-time high levels, charter rates for domestic shipment of petroleum products from the Gulf to the eastern seaboard were unchanged the first week of January, with observers believing rates had about reached "top," barring any unusual increase in movement of products.

While rates were unchanged last week, reports in boat circles here were that the good volume of business which continued to exist was keeping all available tonnage moving. It was not believed that any sharp decline in rates would set in at this time.

Last Fixtures Reported

Fixtures last week were reported at 65 cents per barrel for gasoline, 68 cents for kerosine and 71 cents for light fuel, with boat owners generally asking these prices, or nominally five cents higher. Fixtures last week were at the same level as those done the last week of 1939.

One fixture of a boat for heating oil was reported at 69 cents. It was understood, however, that the concession of 2 cents under prevailing rates for this product were made because it was an exceptionally large vessel, and because previous to its last trip it had carried crude, and was not as "clean" as the boats which had been in the "clean" trade steadily.

'Dirty' Fixtures Given

Last paid on Gulf-North Atlantic movement of light crude was said to be 53 cents, while a cargo of minimum 10 gravity oil was fixed at 59 cents. Like "clean" boats, fixtures of "dirty" vessels were the same as those in effect before the first of the year.

Information concerning boats for foreign movement continued to be virtually impossible to obtain. One unconfirmed report in the boat market here was that a clean boat for Gulf-Italy movement has been fixed at $12 a ton, war risk insurance for owners account, with any increase in insurance to apply against the charterer. Last previous report on Gulf-Italy movement was a fixture at $13 a ton made late in December.

ICC Works on Safety

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Now that the bulk of the work of the Bureau of Motor Carriers (Interstate Commerce Commission) covering permits and certificates to interstate truck operators is out of the way, the emphasis of the Bureau's work has shifted to "safety, enforcement, and rates," according to ICC's annual report, which adds.

"Safety inspectors have been added to the field staff, who, in co-operation with the representatives of state governments, are engaged in educating motor carriers in methods of operation designed to reduce highway accidents and in securing compliance with our safety regulations."

The report only mentions the commission's attempt to get private carriers under its regulatory wing briefly, with: "A proceeding to determine whether or not those regulations should be prescribed for private motor carriers of property has been instituted, and the proposed report is now under consideration."

2056 Tankships in U. S. Hold 40,867,372 Bbls.

N. P. N. News Bureau

NEW YORK, Jan. 4.—Water transportation of petroleum products utilizes 2056 U. S.-registered ships and barges, according to a list of inspected tank vessels published by the U. S. Bureau of Marine Inspection and Navigation.

Vessels in the U. S. oil fleet have a combined gross tonnage of 3,448,211 tons, about 25 per cent of the total of the U. S. merchant marine, and a carrying capacity of 40,867,372 barrels of crude oil and refined products.

The steam and motor tankships (self-propelled) number 358 and 298, respectively. Together this part of the oil fleet has 83 per cent of the total gross tonnage and 81 per cent of the total carrying capacity. The remainder is distributed among 108 large ocean-coastwise-Great Lakes tank barges and 1292 smaller inland barges.

ICC Calendar On Oil Trucking

DECISIONS

Petroleum Carrier Corp., Jacksonville, Fla. Permit granted to operate as a contract carrier of petroleum and products from Charleston, S. C., and Augusta, Ga., to points in N. C. over irregular routes.

Poland Oil Co., St. Louis, Mo. Permit granted to operate as a contract carrier of petroleum products from East St. Louis, Ill., to specified points in Mo. over irregular routes.

HEARINGS

Kirbery Transportation, Inc., Bayonne, N. J. Jan. 11, Brookiyn, N. Y., on contract carrier application to transport petroleum products in N. Y., N. J., and Pa. over irregular routes.

Dummer & Smith, Greybull, Wyo. Jan. 12, Billings, Mont., on contract carrier application to transport petroleum products in Wyo. and Mont. over irregular routes.

H. F. Johnson, Laurel, Mont. Jan. 12, Billings, Mont., on contract carrier application to transport petroleum and products in Mont. and Idaho.

Carroll Line Oil Co., Pueblo, Colo. Jan. 12, Denver, on common carrier application to transport petroleum products in Colo., Okla., Kans., N. Mex., and Tex. over irregular routes.

L. W. Hageman, Laurel, Mont. Jan. 15, Billings, on application to extend operations as a contract carrier of petroleum and products in Mont., Wyo., Idaho, Utah, S. D., N. D., Ore. and Wash. over irregular routes.

Joe F. Jolley, Laurel, Mont. Jan. 16, Billings, on application to extend operations as a contract carrier of petroleum and products in Mont., Wyo., Idaho, Utah, S. D., N. D., Ore., and Wash. over irregular routes.

A. T. A. Leaders Meet to Discuss Good Will Plan

N. P. N. News Bureau

WASHINGTON, Jan. 8. — American Trucking Assn's. Public Relations committee will meet here late this month—probably Jan. 29 and 30—to determine the trend ATA's $500,000 good-will program is to take.

Tentative plans call for issuance of decalcomania labels to place on the rear of all members' trucks stressing the A.T.A.'s motto of "Safety-Courtesy-Service", along with the employment of a traveling representative of the association to call on truck owners and talk to drivers, signing them up to a safe driving and courtesy pledge.

A.T.A. Leader

Ted V. Rodgers

This will include local and state meetings, all of which will be given publicity in the daily press. After this is all lined up, the A.T.A. probably will begin its advertisements in general-circulation magazines to point out how its members and the drivers are pledged to the "Safety - Courtesy - Service" policy.

The $500,000 campaign was approved by the A.T.A.'s executive committee early last year, and was introduced to trucker-members at A.T.A.'s October convention.

"The whole campaign," A.T.A. officials declare, "rests in the hands of the drivers," indicating that unless the drivers carry out the precepts of safety-courtesy-service there is no need for its being advertised.

OIL TAX NEWS

Kansans Back Patman Bill

WASHINGTON — Nearly 100 petitions urging enactment of the Patman "chain" store tax bill (HR 1) were dumped on the clerk's desk in the House on Jan. 3, opening day of Congress. They were presented by Rep. Carlson, Kans., and came from Kansas cities and towns. (See N.P.N., Jan. 3 for details of Patman Bill and how it may apply to service stations.)

Florida Tax Receipts up 8%

TALLAHASSEE, Fla., Jan. 8.—Florida's 7-cents per gallon gasoline tax brought $2,016,161 in November, Comptroller's office reports, more than 8 per cent above sum collected in November 1938, amounting to $1,861,438.

D. C. Tax 'Take' Up 9%

WASHINGTON, Jan. 8.—November gasoline tax collections in the District of Columbia amounted to $243,619, officials report, an increase of 9 per cent over $221,573, collected same month last year. The tax in the District is 2 cents per gallon.

Utah Tax on Diesels Outlawed

CLEVELAND—Utah supreme court has ruled invalid the state mileage tax imposed on vehicles using motor fuel other than gasoline. Court held that this was an arbitrary classification not related to objectives of the legislation. Title of case was Carter vs. State Tax Commission.

Farmers Seek Tax Refund

LOUISVILLE — Kentucky Farm Bureau is expected to press for refund of state gasoline tax on gasoline used in farm tractors, at present session of state legislature, according to the Kentucky Petroleum Marketers Ass'n bulletin.

The bulletin warns that such refunds will lead to similar refunds on all gasoline not used on the highways and to widespread tax evasion and will seriously cripple Kentucky's road program. It estimates that it will cost the road fund $1,000,000 a year in revenue, and add about $100,000 to the cost of operating the state revenue department.

The bulletin adds that less than 5 per cent of Kentucky farmers own tractors, asking "Why should our rural highway program be crippled to grant favors to such a small group?"

1939 Georgia Tax Receipts Up 7%

ATLANTA, Ga., Jan. 8.—In Georgia, gasoline tax collections have been up each month of 1939 compared with the corresponding month in 1938, and in December the $21,046,547 year-end total was 7.2 per cent above the previous year's twelve-month figure of $19,630,315, officials state. December collections amounted to $1,786,597, compared with $1,659,037 in 1938. The gasoline tax in Georgia is 6 cents per gallon.

Canada Weighs Federal Tax On Gasoline for War

OTTAWA, Jan. 9.—Possibilities of a war tax on gasoline in Canada, comparable with the federal tax in the U. S., was evidenced today when Finance Minister J. L. Ralston announced that work had commenced on Canada's annual budget.

Reported to be "staggering in their magnitude", the new gasoline taxes are scheduled to be presented to the government in about two months. To date, only the provinces have taxed gasoline.

Canada's provincial gasoline taxes, as reported weekly in the NATIONAL PETROLEUM NEWS, show current levies ranging from 8 to 10 cents per imperial gallon, which is 1.2 U. S. gallons.

Oil Tax Bill Doubles in Ten Years

NEW YORK, Jan. 6.—Taxes paid by the oil industry continue to mount, reaching an all-time high of $1,334,969,000 in 1939, according to preliminary estimates of the American Petroleum Industries Committee. The 1939 oil tax bill represents a 100 per cent increase over 1929, when $625,681,000 was collected in taxes from the industry and its products. Detailed estimates are:

State Gasoline Taxes	$815,000,000
Federal Gasoline Tax	215,000,000
Real and Personal Property Taxes	138,500,000
Income Taxes, Federal, State, and Local	44,460,000
Severance Taxes and Drilling Permits, State and Local	41,300,000
Lubricating Oil Taxes, Federal and State	29,600,000
Federal Pipe Line Tax	11,000,000
Capital Stock Taxes	7,200,000
Federal Import Taxes on Petroleum and Its Products	6,750,000
Registration Fees and Licenses for Petroleum-Company Vehicles	5,620,000
State Petroleum Inspection Fees	5,460,000
Local Gasoline Taxes	4,320,000
Federal Excises on Automotive Equipment Used by Industry	4,310,000
Corporation Franchises and Mercantile Licenses	4,000,000
State and Local Sales, Privilege, and Occupational Taxes	2,263,000
State Sales Taxes on Automotive Equipment Used by the Industry	186,000
TOTAL	$1,334,969,000

New Bill Opens Way To Roadside Control

N. P. N. News Bureau

WASHINGTON, Jan. 8.—A new departure in highway financing is proposed in the new Hayden-Cartwright highway authorization bill for 1942-43.

It is the principle of "excess taking" of land adjacent to highways for the purpose of paying for construction of the roads.

The new bill would allow the federal government to "acquire in the name of the United States by gift, purchase, exchange, exercise of the power of eminent domain, or otherwise, and to hold, lease with or without option to purchase (as lessor or as lessee), use, sell, exchange, or otherwise dispose of any real property or interest in property necessary or desirable for, or adjacent to" any highway project.

Of interest to the oil industry, is the matter of regulation or restrictions which the government might impose on the construction of service stations, bulk plants and other structures on roadside lands acquired under the "excess taking" provisions; also, the control over stations existing stations in areas so acquired. There is also the question whether or not this provision might not open the way to banning billboards and other signs from such roadside areas.

Acquire By Condemnation

The measure would further permit acquisition of these rights of way, or properties adjacent, through condemnation proceedings — an entirely new departure.

Also, it would authorize the Reconstruction Finance Corporation to make loans to states, municipalities or other public bodies to finance construction of roads or acquisition of rights of way, or adjacent properties.

The provision for federal acquisition of rights of way, or adjacent properties, contains a clause which would "assure recovery by the United States within 40 years of the cost of acquisition of such real property" through payments by the states.

Authorizes Federal Control

At the same time, the bill would provide that the "obtaining of exclusive jurisdiction in the United States over real property to be acquired hereunder shall not be required," but that the Attorney General *may*, if

TPD Sets Bid Openings

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Treasury Procurement Division has set dates for opening bids to supply government requirements of gasoline and fuel oil in April-June quarter as folows:

	Gasoline	Fuel Oil
Region 1	Jan. 29	Jan. 8
Region 2	Jan. 29	Jan. 8
Region 3	Jan. 25	Jan. 12
Region 4	Jan. 22	Jan. 12
Region 5	Jan. 25	Jan. 10
Region 6	Jan. 22	Jan. 10

he deems it expedient, "secure from the state in which such real property is situated, such jurisdiction, exclusive or partial, over any such real property" as he may deem desirable "by filing a notice . . . . with the governor of such state."

This bill (S. 3020 and HR 7695) is similar to measures introduced by the same two sponsors just before the end of the first session (S. 2974 and HR 7533), except that it adds the condemnation procedure.

Of more importance, perhaps, is the exercise of power over these "excess" rights of way which may be exercised by the federal government. President Roosevelt is on record in favor of excess takings, and it is known that there are within the administration (plus pressure from state and unofficial roadside beautification groups) ideas of restricting roadside structures, once the "adjacent" real estate is in control of a regulatory body. The bill does not provide restrictions as to use of "adjacent" lands.

The Hayden-Cartwright bills provide for federal aid highway authorizations for the years 1942-43 (without setting a definite figure—to be supplied in committee). The sponsors of the bills are chairmen, respectively, of Senate and House Roads Committees.

(For complete discussion of roadside control programs and how they may affect oil marketing, see N.P.N., March 15, 1939, Pages 25-34.)

South Dakota Group Plans 1940 Program

CLEVELAND, Jan. 4.—Program of the 1940 convention of the South Dakota Independent Oil Men's Ass'n to be held Feb. 6 and 7 at the Corn Palace, Mitchell, S. D., will feature addresses on salesmanship, price boosting laws, problems of truck transporters and what lube specifications mean to the industry.

A. C. Gienapp, secretary of the Iowa Independent Oil Jobbers Ass'n will discuss "Price Boosting Laws and Their Effect on the Independent Oil Jobber." "Salesmanship" is the subject of Ralph W. Carney, salesmanager of the Coleman Lamp and Stove Co., Wichita, Kans. C. S. Ladd, state chemist of North Dakota, will discuss "Specifications of Lubricating Oil and What They Mean to the Oil Man," while C. Austin Sutherland, of Lincoln, Nebr., will speak on the problems confronting the petroleum transporter.

Other speakers, discussing subjects timely for the oil industry also will appear on the South Dakota program, according to Albert Nelson, president.

NPN's Log ON OIL LEGISLATION

Oil legislative information, summarized below, is based on reports received at Cleveland from Washington and state capitals which are deemed reliable although NATIONAL PETROLEUM NEWS assumes no responsibility for the accuracy or completeness of this information. For congressional bills, the symbol "S" preceding the number signifies "Senate" Bill; the symbol "HR" signifies "House of Representatives" Bill. For state legislatures, "S" signifies a bill in the senate or upper house; "A" or "H" signifies a bill in the lower house.

Congress

Senate Bills

US SB-3020 Hayden, Ariz.
Authorizing "excess taking" of land adjacent to proposed highways to aid in payment of building highways. This provision is included in bill extending federal-aid appropriations for another two years. To Roads Committee.

US S Res.-202 Downey, Calif.
Providing for a $25,000 Senate investigation of a net of superhighways, with a view to working out means of amortizing the cost so as to make them self-supporting as soon as practicable.

House Bills

US HB 7633 Snyder, Pa.
Prescribing a toll of 1-cent per long ton for use of all government built, owned and operated locks on all rivers of the U. S. To Interstate Commerce Committee.

US HB 7645 Voorhis, Calif.
Imposing war excess profits taxes on corporations with capital stock of more than $100,000. To Ways and Means Committee.

US HB-7695 Cartwright, Okla.
Same as S. 3020. To Roads Committee.

State Legislatures

Bills Introduced

NEW YORK

SB-2, Graves
Changes registration date for commercial vehicles to Feb. 1; permits use of old plates during February and March on certain types of vehicles. To Motor Transportation Committee.

HB-46, Whitney.
Same as SB-13. Imposes 3 per cent tax on gross retail sales receipts, services and facilities after June 30, 1941, where aggregate sales exceed $1000; motor fuel exempt. Also repeals tax on mortgages, emergency income tax, and act enabling cities to tax utilities. To Ways and Means Committee.

HB-76, Wachtel.
Requiring compulsory semi-annual inspection of brakes and equipment of motor vehicles. Charge of not more than 50 cents for each vehicle inspected. To Ways and Means Committee.

HB-6, Mrs. Cheney.
Provides for flat registration fee of $5 after Jan. 1, 1941, to replace present fee which is based on weight of vehicle. To Motor Vehicles Committee.

RHODE ISLAND

SB-15, Potter.
Provides for distribution of 10 per cent of gasoline tax to cities and towns for improvement of secondary roads and streets, effective 1941. To Finance Committee.

HB-525, Ferrara.
To reduce gasoline tax from 3 cents to one cent a gallon. To Finance Committee.

Suit Involves Additives Use

CLEVELAND—A countersuit involving use of lubricant additives was filed Dec. 29 by The Lubri-Zol Corp. in the U. S. District Court of Milwaukee against two of three co-plaintiffs in a suit against Lubri-Zol filed Nov. 15 in the U. S. District Court at Wilmington, Del.

Defendants named in the second suit were Delta Oil Products Co. and Filmite Oil Corp., both of Milwaukee. The third co-plaintiff in the first suit, Bakelite Corp., New York, was not named in the countersuit.

No answer has yet been filed to the first suit. Instead, a motion to dismiss has been filed. Among other grounds for the motion are "failure to set forth a proper cause for action as well as for lack of an indispensable party."

The new suit charges infringement of patent No. 2,074,338, one of six patents named in the first suit against Lubri-Zol, on the use of halogenated and chlorinated higher fatty acid of the aliphatic series, such as stearic and oleic acids, in lubricants.

First step in the controversy was taken by Lubri-Zol by notifying Delta and Filmite that they were infringing Lubri-Zol patents. Bakelite was said to be a contributor to infringement by allegedly selling compounds to the two companies. Their answer was to file suit denying validity of six Lubri-Zol patents: Nos. 1,986,645, 1,986,651, 2,051,744, 2,074,338, 2,137,782, and 2,150,079, because the patent applicants were said not to be the original inventors of the alleged improvements.

WASHINGTON — Senator Capper, Kans., in presenting a resolution against the Venezuela Trade Agreement, adopted by the Kansas Independent Oil and Gas Ass'n., told the Senate that the agreement was a "grave injustice perpetrated upon the American oil producers, and upon thousands of men employed in that industry."

Court Enjoins City Ordinance On 'Gas' Signs

OKLAHOMA CITY, Jan. 8.—Temporary injunction against enforcement of one section of Oklahoma City's new ordinance regulating advertising and sale of motor fuel has been granted by District Judge Frank Douglass on application of P. O. Denhan, service station owner.

Judge Douglass held that the ordinance was valid, except for the section which regulates the kind and size of signs and other advertising that can be done elsewhere than on the dispensing pumps. The Judge held that section, which would include curb signs, to be "unreasonable."

The new ordinance was passed by the City Council on Oct. 17. It was intended, according to the City Attorney, to prohibit misleading advertising on the signs around service stations. Station owners frequently would have price signs, it was said, showing the whole cents in extremely large letters and the fractions in very small letters.

Newspaper 'Ads' Included

Section of ordinance which the judge held to be "unreasonable" required all lettering and figures to be of the same size except that fractions or parts can be one-half size. Even in newspaper advertising this requirement had to be met, under terms of the ordinance.

For some companies to comply with that section, it was pointed out, they would have to have signs out of proportion to their requirements. The Texas Co., for example, with its large "T" on the curb post sign would have to have its prices in figures just as large as that "T".

No date for hearing to make injunction permanent has been set and in some quarters it is believed now no hearing will be held.

Oklahoma Quota Hearing Set

OKLAHOMA CITY, Jan. 8.—Hearing to determine market demand for Oklahoma crude oil in February will be held by the Oklahoma Corporation Commission on Jan. 30, Conservation Commissioner W. J. Armstrong has announced.

Mississippi Gets New Wells, Nebraska Discovery Reopened

TULSA, Jan. 8.—Possibility that the new Tinsley pool in Yazoo county, Mississippi, will be extended almost two miles from present production is indicated by showings in two outpost wells.

One well, slightly more than 1.5 miles north of the present producing section, was reported to have had a definite showing the past week at a depth of 4800 feet. Another test about the same distance but to the northeast also had a showing at 4860 feet and the well is now being drilled deeper.

The field now has 10 producing wells, the ninth one being the Union Production Co.'s No. 2 Jennie Stevens, which made an estimated 300 barrels a day. The tenth well is the company's No. 4 G. C. Woodruff which tested as one of the field's best to date with 75 to 100 barrels an hour.

Reports received here today indicated a definite oil showing had been found in a test well north of Kirksville, Mo. in Schuyler county. This is on the fringe of the Forrest City Basin area which was given an extensive leasing play a little more than a year ago. A definite oil show is found each time the bailer is run in the well.

The Pawnee Royalty Co.'s discovery well in southeastern Nebraska is reported making about 85 barrels of oil and 350 barrels water daily. The well was shut down several days ago due to pump failure. It was then acidized and production increased but water also began to come into the hole.

The company's second well in the discovery area failed to find production.

Russell Brown Hits Oil Import Tax Cut

N. P. N. News Bureau

WASHINGTON, Jan. 9. — Again attacking the State Department's arguments supporting its position in cutting the import tax on foreign crude and fuel oil in the Venezuelan trade agreement, Russell B. Brown, general counsel of Independent Petroleum Ass'n. of America in a letter to the Department, points out that Congress imposed excise taxes because it believed imports of foreign crude detrimental to the domestic industry.

Mr. Brown attacks the Department's assertion that the 5 per cent allowed to come in under the "cut" rate was not enough to seriously affect the domestic industry. He pointed out in his letter that the chief reason for the collapse of crude prices in October, 1938, was the uncontrolled and low cost oil produced, yet "the production in Illinois at the time of the price collapse equalled 2.7 per cent of the total domestic crude production. It would seem," he added, "that this destroys your theory that 5 per cent is too small a proportion to have any serious effects."

'Dry' Hole Surprises as Gasser, Then Distillate, Winds Up as Oil Well

GALVESTON, Tex., Jan. 6.—A League City field deep test well which the drilling crew was preparing to abandon as a "dry hole" Jan. 3 suddenly blew in as a "gasser," then became a distillate producer and now is an oil well.

The test well was being drilled by the Phillips Petroleum Co. in the northern outpost of the field. Drill stem had gone down to 11,270 feet, deepest test in the field. No show of either oil or gas was reported.

The crew had been instructed to plug and abandon the well, and were jarring loose the drill stem preparatory to removing it when the well began making dry gas. Within 24 hours the pressure had increased to an estimated 7800 pounds per square inch at the well mouth, a record gas well pressure even for the Gulf coast where pressures run high.

The sand carried in the gas, cut the steel well head fitting and the well got out of control.

After blowing dry gas for about 36 hours the well began to make a quantity of distillate and within another 12 hours crude oil began to appear.

Earthen dikes were being thrown up today and an effort will be made early in the week to cap the well.

The well is believed by some oil men and geologists to indicate an entirely new producing horizon for the League City field, since present production in that area is coming from the 9000-foot level.

Congress Gets Petitions From A.P.I. and I.P.A.A.

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Petitions asking that Congress consider their resolutions in opposition to the Cole Bill (HR 7372) have been filed on Capitol Hill in behalf of the American Petroleum Institute and the Houston Chamber of Commerce.

Petitions were also filed on behalf of the American Petroleum Institute and the Independent Petroleum Association of America objecting to oil concessions in the Venezuelan trade agreement recently promulgated.

Texas Oil Men Say Wirtz 'OK'

(*Continued from page* 9)

the Wirtz appointment as a "reward" from President Roosevelt for his New Deal backing. Mr. Wirtz represented Mayor Maverick of San Antonio in his trial recently on charges of conspiring to pay the poll tax of another. The mayor and Ex-Congressman, who is a close friend of Secretary Ickes, was acquitted.

Mr. Wirtz also has been attorney for the Lower Colorado River Authority, a large public power development and flood control project northwest of Austin, financed by PWA.

KMA Field will Get New Outlet for Oil

WICHITA FALLS, Tex., Jan. 8.—Additional outlet for crude from the KMA field near here will be provided by the Sinclair Prairie Pipeline Co. within the next three months.

The company is preparing to loop its present line from the field to its trunk line to the Gulf Coast. Bids have been asked on the 66-mile, 8-inch line, with construction to be started by Feb. 1 and completed by March 15.

The company last May completed a 6-inch line from the field to its trunk line in Jack county. This line has a capacity of approximately 10,000 barrels daily. The 8-inch loop will increase capacity to approximately 23,000 barrels daily.

Cost of construction and of right-of-way, together with a pump station in Archer county and the enlargement of the KMA station, is estimated at $500,000.

Stanolind Plans New Crude Line In West Kansas

N. P. N. News Bureau

TULSA, Jan. 8.—A market outlet for several western Kansas pools, which heretofore have been shut in is to be provided by the Stanolind Pipeline Co., subsidiary of the Standard Oil Co. of Indiana.

The company is planning to lay 120 miles of 8 and 10-inch line from near the Bemis pool in Ellis county to Washington county. The new line will connect with the Standard's trunk line from Wyoming, which ties into the trunk lines from the Mid-Continent south of Kansas City. The line is expected to be in operation by the latter part of April.

The company already has one line into western Kansas and is taking about 28,000 barrels of oil daily from some of that area. The new line is to be built because the present system would not be able to handle the increased amount of oil expected to be taken from the pools to which connections are to be made.

The Standard company was one of the pioneer purchasers in the western Kansas area and has developed some properties of its own in several of the pools.

While a number of major companies have holdings in several of the pools, many independent operators also are interested and the new pipeline will give many of them a larger potential market outlet than they have had since their wells were drilled.

S. A. E. Lists Meeting Series

NEW YORK, Jan. 4.—Annual Meeting and Engineering display of the Society of Automobile Engineers will be held Jan. 15 to 19 at the Book-Cadillac Hotel, Detroit, according to the schedule of national meetings of the Society announced for 1940.

The Society's National Aeronautic Meeting will be held March 14 and 15 at the Washington Hotel, Washington, D. C. National Transportation and Maintenance Meeting will be held March 28 and 29, at the Mellon Institute Auditorium, Pittsburgh. The summer meeting of the S. A. E. will be held June 9 to 14 at the Greenbrier, White Sulphur Springs, W. Va.

Texas Commission Studies How to End Oil Shutdowns

N. P. N. News Bureau

TULSA, Jan. 8.—The highly important statewide proration hearing to determine allowable production in Texas in February has been set for Jan. 16 at Austin, Tex.

The hearing is important because the Texas Railroad Commission has indicated that it will attempt in February to end the long-used plan of shutting down wells each weekend in order to keep production within conservative bounds and reasonable market demand.

If the commission succeeds in drafting an order which will permit return to 7-day production it will have to abandon its previous interpretations of the marginal well law, according to many observers. It is likely that a lawsuit will be "invited" in order to get an authoritative opinion on that law. At the December hearing several oil men, who also are lawyers, told the commission that a new interpretation was needed.

The law prohibits a pumping well of a certain depth from being restricted as to production below a certain daily amount. In East Texas, for example, no pumping well can have its production reduced below 20 barrels a day if it is capable of making that amount over a 30-day period.

The commission has tied this law to a court ruling of several years ago which held that in fixing per-well allowables a good well should be given more production than a poor one. Thus a flowing well in East Texas could not be cut below 20 barrels a day because otherwise it would then be lowered to a point below that of a poorer well which had to be pumped.

Marginal Wells Get 193,000 Bbls.

According to the commission's statisticians 193,000 barrels of the state's allowable must be given to the marginal wells, and on the theory that a flowing well cannot be cut below the pumping or marginal well, 1,108,000 barrels must be allocated to "marginal allowance" of flowing wells.

The Bureau of Mines has estimated January demand for Texas oil at 1,440,000 barrels daily. This leaves only 130,000 to 140,000 barrels daily to "prorate". This would amount to an average increase per well in Texas of less than 2 barrels a day.

Rowan-Nichols Sue Again

The commission is faced, meanwhile, with another petition by Rowan & Nichols Oil Co., which launched the lawsuit that shot the props out from under the commission's East Texas plan of proration.

The first suit was filed when the commission denied the company's petition for an increase in allowable from its Todd B lease. Now, the company in its second petition asks similar increase from its Todd A lease. If the commission turns down the petition, it may lead to a second lawsuit which would be directed at the new East Texas order, written after the first suit caused the writing of the new one.

* * *

Kansas Sets Allowable

WICHITA, Kan., Jan. 8.—Allowable crude oil production in Kansas in January has been set at 160,600 barrels daily by the Kansas corporation commission.

New allowable is 7400 barrels under the December allowable but is the same as the Bureau of Mines' estimate of market demand for Kansas crude in January.

* * *

Talco Allowable Cut

AUSTIN, Tex., Jan. 8.—Texas railroad commission has reduced allowable production from Talco field from 41,435 to 38,784 barrels daily at request of the operators who reported a decrease in market demand for the heavy asphaltic crude.

* * *

New Mexico Reduces Quota

SANTA FE, N. M., Jan. 6.—Daily allowable production for New Mexico has been set at 101,900 barrels daily for January by the state oil conservation commission. This is a reduction of 8100 barrels daily below the December allowable.

Burner Shipments Gain

N. P. N. News Bureau

WASHINGTON — Shipments of oil burners by American manufacturers during the January-November period in 1939 totaled 201,730, Census Bureau figures show, compared with 130,387 shipped during same period of 1938. November shipments amounted to 20,085 as against 11,518 in same month of 1938. These burners, which consume CS No. 1 grade or heavier oil, are used in industrial process equipments and for heating large buildings.

DEATHS

So widespread is the oil industry that many friends are separated for years. NPN would like friends and relatives of any deceased oil man to send in notice of his passing for publication.

I. E. Harwell

I. E. Harwell, oil man and banker of Burkburnett, Tex., and reputedly that town's wealthiest citizen, died Jan. 3 following a heart attack.

Byron C. Rhome, Jr.

Byron C. Rhome Jr., aged 68, Fort Worth oil man and son of an early day rancher for whom the town of Rhome, in Wise county, was named, died at his home Jan. 5.

Charles R. Cole

Charles R. Cole, aged 74, president of the Cole Petroleum Co., Laredo, Tex., and a pioneer oil and gas operator, was found dead in dense brush some distance from Laredo Jan. 4. He had been one of the principals in a receivership suit on trial and had been missing for two days.

George C. Matson

George C. Matson, aged 66, Tulsa geologist, died suddenly at his home Jan. 3. A native of Nebraska, Matson obtained his technical education at Doane college, Nebraska and Cornell universities, then obtained his Ph. D. from University of Chicago in 1920. He was a member of the faculties of Cornell, Illinois and Chicago universities. Joining the U. S. Geological Survey in 1906 he remained with that government agency until 1916. In 1921 he set up his own offices in Tulsa and from 1922 to 1929 was vice president of the Schermerhorn Oil Co. He was author of several articles in technical journals and geological survey bulletins.

Alexander MacMaster

Alexander MacMaster, 48, formerly chief engineer for the Union Oil Co. of California, and for the past 10 years consultant engineer, died Dec. 29 in Los Angeles of heart disease. He leaves his widow, Mrs. Katherine MacMaster and two daughters, Katherine and Margaret. Born in Renfrew, Scotland, Mr. MacMaster attended engineering college there. Among accomplishments in the field of engineering, he supervised the installation of the power plant for the Los Angeles Times.

Thomas D. Kingsley

Thomas D. Kingsley, 56, of S. F. Bowser & Co., Inc., equipment manufacturers, died Dec. 7 at his home in Rutland, Vermont.

Mr. Kingsley started with Bowser as a salesman in January, 1911, later heading the Chicago and Philadelphia offices of the company, being made sales manager at the company's home office in Fort Wayne, Ind. in 1921. In 1926 he was appointed vice-president in charge of commercial affairs, and held that post until his resignation in 1931. After several years of poor health, he rejoined Bowser in 1938 in the Vermont sales territory, working out of Rutland, which was his birthplace.

Lee Webster Adams

Lee Webster Adams, 47, petroleum engineer and geologist for the Reed, Adams Development Co., died Jan. 7 at London, Ontario.

Pipeline Figures Given

N. P. N. News Bureau

WASHINGTON, Jan. 8.—There are now 65 pipeline companies, owning some 95,381 miles of lines, subject to the Interstate Commission Act's valuation proceedings, ICC reveals in its annual report to Congress.

Of the 66, there were 52 companies, owning 93,036 miles of line included in the program at the time the valuation orders were issued late in 1934. Of these, 44 companies, owning 77,516 miles of line, have been served with tentative valuations.

Of these 44, final valuation reports have been issued for 35 companies, and in five other instances, the underlying reports have been served—a preliminary to tentative valuation.

The preliminary work is being completed on the 14 carriers which, since the work began, have come into existence or have become subject to the act, the report says.

Utah Pipeline Files Rates

By Teletype

WASHINGTON—A new tariff for Utah Oil Refining Co.'s new pipeline from Wyoming to Utah publishes following rates: 74 cents per barrel on crude petroleum from Lance Creek, Wyo., to Woods Cross, Utah, for Salt Lake City, 55 cents per barrel from Medicine Bow Pool and Rock Creek Station to Salt Lake City. Both rates are subject to additional charge of 5 cents per barrel for gathering.

Japan's '39 Takings Of California Oil Drop 3,000,000 Bbls.

N. P. N. News Bureau

LOS ANGELES, Jan. 5.—Despite a strong closing, 1939 shipments of California crude and products to Japan were approximately 3,000,000 barrels below those of 1938, nearly complete figures indicate.

Total shipments of crude and all products shipped to Japan from the West Coast, from Jan. 1 through Dec. 30, were 28,069,000 barrels as compared with 31,180,985 barrels in 1938. Daily average shipments in 1939 were approximately 77,000 barrels.

Pacific Coast offshore shipments (Pacific and Atlantic foreign and intercoastal) for the first 30 days in December were 159,100 barrels daily, compared with November's average of 186,000 barrels daily, and December 1938's average of 153,400 barrels daily. These figures include crude and all types of petroleum products.

Of the 159,100 barrels which left the Pacific Coast in December, 74,900 barrels went to Japan; 57,500 barrels were Pacific foreign, other than Japan; 5300 barrels, Atlantic foreign; and 21,400 barrels, East Coast.

Broken down into the types of petroleum shipped to Japan, about 60 per cent was crude; 5 per cent gasoline; 2 per cent miscellaneous; and 33 per cent fuel oil. Most of the fuel oil was navy specification.

California Production Drops to 606,688 Bbls.

N. P. N. News Bureau

LOS ANGELES, Jan. 5.—Although production figures for California crude oil are available for only the first two days of this year, the average decrease may be taken as a harbinger of what is to be expected in the West Coast's curtailment program for the coming year, according to oil umpire officials.

Average production for the first two days in January was 606,688 barrels daily, compared with 623,408 barrels daily for a like period in December.

Production for the day of Jan. 2 in California's main producing areas was: San Joaquin Valley, 235,133 barrels, or 8958 barrels above its quota; Coastal District, 69,042 barrels, or 7355 barrels under its quota; and Los Angeles Basin, 307,900 barrels, 12,422 barrels in excess of its quota.

Pan-Am Buys Acreage In Gillock

HOUSTON, Tex., Jan. 6.—Pan American Petroleum Corp. has purchased from Mar-Tex Oil Co. its producing properties and acreage in the Gillock field in Galveston county. The properties have 13 producing wells, and are located near the Pan American's pipeline and only a few miles from its refinery at Texas City.

Chicago Retailers Elect

N. P. N. News Bureau

CHICAGO, Jan. 5.—New officers elected to head the Gasoline Retailers' Ass'n. of Metropolitan Chicago for the coming year are: B. M. Provis, president, succeeds C. E. Ragen; Edward Bailey, executive vice president, succeeds Thomas J. Kilroy; Thomas O'Connor succeeds Thomas Gerald as secretary. Directors are Robert Wyatt, J. G. Moe and C. M. Norman.

The new officers and directors are all actively engaged in the operation of service stations in the city. Retiring officers have become engaged in other forms of business activity.

Tire Companies Cited By FTC

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Federal Trade Commission has cited Firestone Tire & Rubber Co., Goodyear Tire & Rubber Co. and The B. F. Goodrich Co. for alleged misrepresentation in advertising in connection with "purported discounts from the regular prices" in pre-holiday sales.

FTC alleges that "the respondents conduct nation-wide tire sales through their dealers, causing advertisements to be placed in newspapers and other periodicals in which it is falsely representetd that the respondents' tires are being sold at various purported discounts from the regular prices, such sales usually being conducted just prior to Memorial Day, July 4, Labor Day and at other intervals."

However, the Commission asserts, the so-called "sale prices" either represent no saving whatever under the regular prices, or that the savings affected are considerably less than the advertised difference between regular and sale prices.

Twenty days are given for filing of answers.

Federal 'Gas' Prices Show Varied Trends

N. P. N. News Bureau

WASHINGTON, Jan. 8. — Comparison of prices at which contracts were awarded to supply gasoline to federal government agencies during the first (January-March) quarter of 1940 with prices for the January-March period of 1939 and with the prices for the fourth (October-December) quarter of 1939, reveals that in the East prices for the most part were somewhat higher while in the West, particularly on the West Coast, the prices were down sharply. Bids were submitted to the Treasury Procurement Division around Oct. 1.

Contracts call for tankwagon delivery of V-70 gasoline (minimum 70 octane A.S.T.M.), under which specification the companies usually deliver their house-brand regular motor fuels (many of which run higher than 70 octane). While comparison of prices given in accompanying table are for tankwagon deliveries only, analysis indicated a similar trend in prices for tank-car deliveries.

Comparative prices in contracts for tankwagon delivery of V-70 grade gasoline (minimum 70-octane A.S.T.M.) to federal agencies during the first and last quarters of 1939 and the first quarter of 1940 are shown below. Maximum or top price is given, with the posted price basis given in parenthesis (the government will buy at whichever is the lower at time of delivery). The symbol "tc" refers to commercial consumer tank car price; "tw", commercial consumer tankwagon price.

City	*First Quarter (Jan.-March) 1939	*Last Quarter (Oct.-Dec.) 1939	First Quarter (Jan.-March) 1940
	Cents per Gallon		
Bridgeport, Conn.	6.49 (tc + .5)	6.1 (tc flat)	6.6 (tc + .25)
New Haven, Conn.	6.49 (tc + .5)	6.1 (tc flat)	7.05 (tc + .5)
Wilmington, Del.	6.33 (tc + .5)	6.14 (tc flat)	6.96 (tc + .5)
Baltimore, Md.	5.86 (tc flat)	6.65 (tc flat)	6.71 (tc + .5)
Worcester, Mass.	6.71 (tc + .5)	6.65 (tc + .5)	7.45 (tc + .5)
Boston, Mass.	6.43 (tc + .18)	5.95 (tc + .5)	6.85 (tc + .5)
Jersey City, N. J.	5.86 (tc flat)	6.29 (tc flat)	6.8 (tc flat)
Newark, N. J.	5.86 (tc flat)	6.29 (tc flat)	6.8 (tc flat)
Buffalo, N. Y.	6.69 (tc flat)	6.25 (tc flat)	7.35 (tc flat)
Rochester, N. Y.	7.15 (tc flat)	7.1 (tc + .5)	7.3 (tc + .5)
Brooklyn, N. Y.	6.0 (tc flat)	6.2 (tc flat)	6.89 (tc + .5)
Flushing, N. Y.	6.0 (tc flat)	6.2 (tc flat)	6.89 (tc + .5)
Jamaica, N. Y.	6.0 (tc flat)	6.2 (tc flat)	6.89 (tc + .5)
Manhattan, N. Y.	6.0 (tc flat)	6.2 (tc flat)	6.89 (tc + .5)
Pittsburgh, Pa.	7.39 (tc + .5)	7.25 (tc + .75)	7.4 (tc flat)
Harrisburg, Pa.	6.69 (tc + .5)	6.96 (tc + .25)	7.4 (tc + .5)
Philadelphia, Pa.	6.39 (tc flat)	6.23 (tc flat)	6.94 (tc flat)
Providence, R. I.	6.5 (tc + .5)	6.24 (tc + .5)	6.85 (tc + .5)
Birmingham, Ala.	7.15 (tw — 4.0)	7.4 (tw — 3.0)	7.9 (tw — 3.0)
Jacksonville, Fla.	6.4 (tw — 4.0)	6.37 (tw — 3.0)	6.75 (tw — 1.0)
Miami, Fla.	6.9 (tw — 4.0)	6.68 (tw — 3.0)	7.0 (tw — 3.0)
Atlanta, Ga.	8.48 (tw — 3.0)	8.25 (tw — 3.0)	8.74 (tw — 3.0)
New Orleans	6.22 (tc flat)	6.1 (tc + 1.0)	6.3 (tc flat)
Charleston, S. C.	6.57 (tc flat)	6.33 (tc flat)	6.87 (tc + .5)
Chattanooga, Tenn.	8.85 (tc + .5)	9.44 (tc flat)	9.34 (tc + 1.0)
Nashville, Tenn.	7.6 (tc + .5)	8.77 (tc + 1.0)	8.95 (tc + 1.0)
Memphis, Tenn.	6.85 (tc + .5)	6.64 (tc flat)	7.38 (tc + .5)
Richmond, Va.	6.83 (tc flat)	6.49 (tc flat)	6.88 (tc + .5)
Norfolk, Va.	6.5 (tc flat)	6.3 (tc flat)	6.67 (tc + .5)
Chicago, Ill.	6.41 (tw — 2.0)	7.0 (tw — 2.0)	7.25 (tw — 2.0)
Indianapolis, Ind.	7.6 (tw — 1.5)	7.3 (tw — 1.5)	7.875 (tw — 1.0)
Des Moines, Iowa	7.2 (tw — 1.5)	7.5 (tw — 1.5)	7.4 (tw — 1.5)
Louisville, Ky.	7.5 (tw — 3.0)	7.32 (tw — 3.0)	7.5 (tw — 1.0)
Grand Rapids, Mich.	8.21 (tw — 1.5)	8.4 (tw — 1.5)	8.0 (tw — 1.5)
Detroit, Mich.	6.97 (tw — 2.0)	7.24 (tw — 1.5)	7.6 (tw — 1.5)
Minneapolis, Minn.	7.79 (tw — 1.5)	7.6 (tw — 1.5)	8.14 (tw — 1.5)
St. Paul, Minn.	7.79 (tw — 1.5)	7.6 (tw — 1.5)	8.14 (tw — 1.5)
Kansas City, Mo.	6.4 (tw — 1.5)	6.32 (tw — 4.08)	7.0 (tw — 3.4)
St. Louis, Mo.	6.82 (tw — 1.5)	6.74 (tw — 1.5)	7.23 (tw — 1.5)
Omaha, Nebr.	7.34 (tw — 1.5)	7.24 (tw — 1.5)	7.6 (tw — 1.5)
Toledo, O.	7.81 (tw — 3.03)	7.375 (tw — 3.125)	7.875 (tw — 3.125)
Cleveland, O.	7.74 (tw — 3.26)	6.75 (tw — 3.75)	7.25 (tw — 3.125)
Akron, O.	7.125 (tw — 2.75)	7.375 (tw — 3.125)	7.875 (tw — 3.125)
Cincinnati, O.	7.125 (tw — 2.75)	6.85 (tw — 2.5)	7.35 (tw — 3.125)
Columbus, O.	7.16 (tw — 3.03)	7.0 (tw — 3.5)	7.375 (tw — 3.125)
Milwaukee, Wisc.	7.0 (tw — 1.5)	7.3 (tw — 1.5)	7.5 (tw — 1.5)
Albuquerque, N. Mex.	8.5 (tw flat)	7.5 (tw flat)	7.5 (tw flat)
Oklahoma City, Okla.	6.2 (tw flat)	5.8 (tw — 1.0)	5.8 (tw flat)
Dallas, Tex.	6.25 (tw flat)	5.75 (tw flat)	6.0 (tw flat)
San Antonio, Tex.	7.9 (tw flat)	7.5 (tw flat)	7.4 (tw flat)
Denver, Colo.	7.85 (tw — 2.0)	7.5 (tw — 3.5)	7.75 (tw — 2.0)
Salt Lake City, Utah	10.0 (tw — 2.0)	9.32 (tw — 2.0)	9.14 (tw — 2.0)
Phoenix, Ariz.	9.7 (tw — 3.0)	8.5 (tw — 3.0)	8.24 (tw — 3.0)
San Francisco, Calif.	7.73 (tw — 3.0)	6.2 (tw — 3.0)	5.34 (tw — 3.0)
Sacramento, Calif.	8.1 (tw — 3.0)	6.8 (tw — 3.0)	5.68 (tw — 3.0)
Berkeley, Calif.	7.73 (tw — 3.0)	6.2 (tw — 3.0)	5.34 (tw — 3.0)
Oakland, Calif.	7.73 (tw — 3.0)	6.2 (tw — 3.0)	5.34 (tw — 3.0)
Los Angeles, Calif.	6.9 (tw — 3.0)	6.0 (tw — 3.0)	5.5 (tw — 3.0)
San Diego, Calif.	7.6 (tw — 3.0)	6.5 (tw — 3.0)	6.1 (tw — 3.0)
Portland, Ore.	8.99 (tw — 3.0)	7.3 (tw — 3.0)	6.28 (tw — 3.0)
Spokane, Wash.	10.99 (tw — 3.0)	9.0 (tw flat)	8.59 (tw — 3.0)
Seattle, Wash.	7.99 (tw — 3.0)	6.97 (tw — 3.0)	5.66 (tw — 3.0)

Increased Oil Demand To Hike Tax Revenue

N. P. N. News Bureau

WASHINGTON, Jan. 8. — President Roosevelt's budget message, setting the total outlay for government expenses in the next fiscal year (beginning July 1) at $8,424,000,000, contains a number of items of direct interest to the petroleum industry—in addition to its interest in taxes and expenditures generally.

Under the income column of the budget, the President estimated a $13,000,000 increase (6 per cent) in receipts from the federal gasoline tax of one-cent per gallon over the 1940 estimate, and $27,000,000 (13 per cent) over actual receipts in the fiscal year which ended June 30, 1939. Also, an increase of almost $4,000,000 (nearly 12 per cent) is foreseen in receipts from the tax on lubricating oils and about $2,000 000 (15 per cent) in receipts from the tax on pipeline transportation.

On the appropriations side of the ledger, a considerably curtailed appropriation for highways is recommended, although it is pointed out by Roads officials that excesses left over from the current year will enable expenditures during the coming fiscal year to be about at the same level as this year.

Arnold Rebuffed

Anti-Trust Chief Thurman Arnold, who only a week or so ago, in his annual report, recommended that his division be given additional personnel, (which means additional funds) probably will be somewhat deflated by the decrease recommended by the President in his Division's appropriation. Also, the new attorney general, Robert H. Jackson, formerly Chief of the Anti-Trust Division, may be expected to feel that the budget estimate is unsatisfactory.

A small increase ($40,000) is recommended for the Bureau of Motor Carriers, Interstate Commerce Commission, in the budget, although it is felt that so slight a rise in the appropriation will not enable the Bureau to speed up its action on the thousands of pending applications which were dropped in its lap as a result of the Motor Carrier Act.

More For FTC Codes

The President asked Congress to appropriate $100,000 for Federal Trade Commission's Trade Practice Conferences, compared with an appropriation of $78,280 for the current year and $71,283 for the year ended June 30 last. The oil industry's "code", is still pending before FTC's Trade Practice Conferences Division.

Although the total appropriation recommended for the Bureau of Mines was somewhat below the curent year ($2,869.360 as against $2,905,160), the President recommended slight increases in two of the Bureau's activities which affect oil closely. A $7000 increase was recommended under Economics of Mineral Industries, and a $100 increase under Oil and Gas Investigations.

$260,000 for Connally Law

The budget recommended that appropriations for Interior Department's Conservation Division (which administers the Connally "Hot" Oil Law) be continued at the same level as for the past two years—$260,000.

The accompanying table breaks down the 1941 recommendations of appropriations for those departments of government of particular interest to the oil industry, comparing them with the appropriations for the two previous years. It also shows the estimated income from a continuation of the "emergency" taxes on gasoline and lubricating oil. It should be noted that the government's 1939 fiscal year ended June 30, 1939; that the 1940 fiscal year ends June 30, 1940; and the 1941 fiscal year begins July 1, 1939 and ends June 30, 1941.

INCOME ESTIMATES

	1941 Estimate	1940 Estimate	1939 Actual
Federal Gasoline Tax	$234,800,000	$221,600,000	$207,018,745
Lube Oil Tax	36,300,000	32,700,000	30,496,637
Pipe Line Transportation	14,300,000	12,300,000	10,954,733

APPROPRIATIONS

(1941 Appropriation Recommendations compared with appropriations for current and past fiscal years.)

	1941 Recommendation	1940 Appropriation	1939 Appropriation
Public Roads Administration*			
Federal Aid System	$100,000,000	$125,000,000	$125,000,000
Secondary Roads	15,000,000	25,000,000	20,000,000
Grade Crossings	30,000,000	40,000,000	40,000,000
Public Land Roads	1,000,000	1,000,000	2,500,000
Total, PRA	146,000,000	191,000,000	187,500,000
Petroleum Conservation Division (Interior Dept.)	260,000	260,000	260,000
Mines Bureau:			
Oil and Gas Investigations	260,100	260,000	260,000
Economics of Mineral Industries	338,560	331,500	324,500
Justice Dept.:			
Anti-trust Division	1,209,000	1,309,000†	789,060
ICC-Bureau of Motor Carriers	3,690,000	3,650,000	3,250,000
FTC—Trade Practice Conferences	100,000	78,280	71,283

*Formerly Bureau of Public Roads.
†President Roosevelt's budget estimate of $1,530,000 for the anti-trust division last year was cut to this figure.

Fuel Stocks Slashed Deeply

N. P. N. News Bureau

NEW YORK, Jan. 9.—Combined stocks of gas oil, distillate and residual fuel oils were slashed nearly 2,500,000 barrels in the U. S. in the week ended Jan. 6, according to a report of refinery operations compiled today by the American Petroleum Institute.

Gas oil and distillate stocks at refineries, in terminals and in pipelines were down 1,001,000 barrels for the country as a whole, the report shows, while residual fuel stocks at refineries and in terminals and in transit were cut 1,487,000 barrels.

Total stocks of light fuels were 32,183,000 barrels on Jan. 6, down 3,408,000 barrels from stocks at a comparable date last year. Residual stocks totaled 105,247,000 barrels on the same date, while stocks on Jan. 7 last year were 118,055,000 barrels—a drop of 12,808,000 barrels in inventory of these oils from stocks last year.

Stocks at refineries on the Gulf, in Louisiana and Texas, alone accounted for 770,000 barrels of the cut in heavy fuels, while stocks at East Coast plants were down 319,000 barrels during the week.

Crude runs to stills were down 75,000 barrels on daily average during the week, the Institute report shows. The largest cut occurred at California refineries, where 43,000 barrels less crude daily was put through stills. Inland Texas and Texas Gulf refineries cut runs 22,000 and 15,000 barrels daily, respectively.

Gasoline stocks over the country continued to mount, with 1,017,000 barrels added to storage during the first week of the year. Stocks on Jan. 6 stood at 82,002,000 barrels, the Institute report shows, compared with stocks of 72,936,000 barrels on a comparable date last year—an increase of 9,066,000 barrels.

ICC Size-Weight Report

N. P. N. News Bureau

WASHINGTON, Jan. 8.—It will now be February before the first of a series of reports leading up to Interstate Commerce Commission's determination of the "need" for federal truck size and weight regulations will be published, it was learned today.

Crude Stocks Drop 35,000,000 Bbls. in 1939

N. P. N. News Bureau

WASHINGTON, Jan. 8.—Stocks of crude petroleum on Dec. 30 totaled 237,742,000 barrels, a gain of 1,704,000 barrels over Dec. 23, Bureau of Mines reports. The 1939 year-end total was 35,282,000 barrels under stocks on hand on Dec. 31, 1938, chiefly due to the 15-day shutdown in production during the last two weeks of August. Stocks by grade or origin are tabulated below:

Grade or origin	Dec. 16	Dec. 23	Dec. 30	Change from Dec. 23
Pennsylvania Grade	4,818	4,780	4,688	— 92
Other Appalachian	1,340	1,386	1,436	+ 50
Lima-Michigan	1,436	1,430	1,456	+ 26
Illinois-Indiana	16,263	16,321	16,592	+ 271
Arkansas	2,553	2,494	2,683	+ 189
Kansas	6,485	6,696	6,814	+ 118
Louisiana:	10,943	11,067	11,162	+ 95
Northern	3,914	3,938	3,801	— 137
Gulf Coast	7,029	7,129	7,361	+ 232
New Mexico	6,038	6,147	5,939	— 208
Oklahoma	59,907	60,526	60,377	— 149
Texas:	67,502	69,146	70,611	+1,465
East Texas	14,589	15,247	15,741	+ 494
West Texas	14,840	14,791	15,306	+ 515
Gulf Coast	16,915	17,537	18,078	+ 541
Other Texas	21,158	21,571	21,486	— 85
Rocky Mountain	17,602	17,631	17,669	+ 38
California	34,826	35,331	35,320	— 11
Foreign	2,902	3,083	2,995	— 88
Total U. S. refinable	232,615	236,038	237,742	+1,704
Heavy in California	13,556	13,401	13,292	— 109

Latest Oil Industry Statistics

Crude Oil Production for the U. S.

(American Petroleum Institute figures)

	Week Ended Jan. 6 Barrels	Dec. 30 Barrels	Dec. 23 Barrels
Oklahoma	435,700	418,200	430,800
Kansas	166,400	178,600	183,750
Nebraska	50	.....	.....
Texas	1,346,900	1,305,900	1,588,100
Louisiana	269,050	267,050	269,150
Arkansas	69,450	70,650	70,150
Mississippi	2,450	1,700	2,000
Illinois	330,050	337,850	335,850
Eastern (Ill. excluded)	99,400	103,600	107,600
Michigan	68,150	67,300	66,150
Wyoming	64,650	62,750	64,650
Montana	16,950	17,050	17,750
Colorado	4,150	4,200	3,900
New Mexico	109,100	109,050	108,150
California	602,000	601,100	619,900
Total U. S.	3,584,450	3,545,000	3,867,900
Crude Imports	69,430	85,300	111,900
Total New Supply	3,653,870	3,630,300	3,979,800

Mid-Continent Lube Statistics, November 1939

(Reported by Western Pet. Refiners Ass'n. covering operations of 12 member reporting companies)

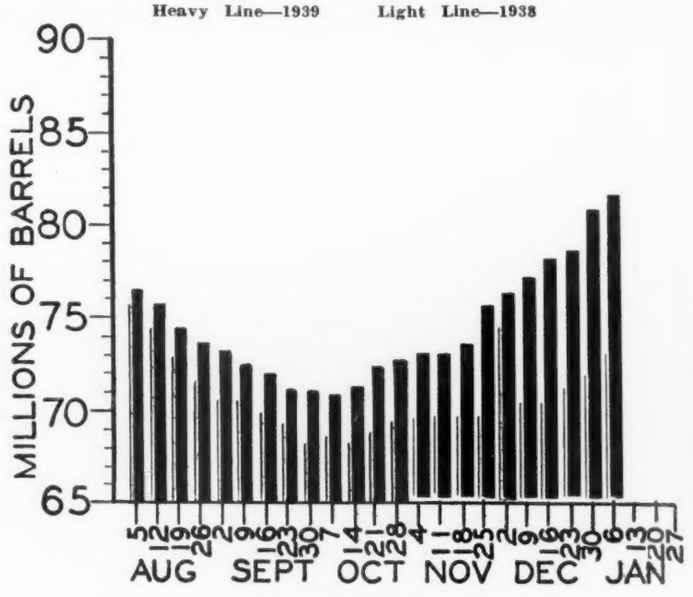
	Bright Stock	Viscous Neutrals	Paraffin Oils	Steam Refined Stock	Blended Oils
Production	203,635	189,756	58,012	43,003	168,921
Shipments:					
Domestic	109,315	178,858	49,568	63,540	184,971
Export	37,969	6,044	1,346	2,485	6,625
Total	147,284	184,902	50,914	66,025	191,596
Inventory Nov. 30, 1939	253,038	148,105	46,342	90,744	108,254
Inventory Oct. 31, 1939	196,687	143,251	39,244	113,766	130,929
Inventory Nov. 30, 1938	357,853	174,842	49,277	143,262	131,158

Trends of Basic Figures

	Jan. 6, 1940	Dec. 30, 1939	Jan. 7, 1939
Crude Production (*Bbls. daily*)	3,584,450	3,545,000	3,214,900
Crude Imports (*Bbls. daily*)	69,428	85,300	84,714
Crude Runs to Stills (*Bbls. daily*)	3,370,000	3,445,000	3,170,000
Gasoline Stocks (*Bbls. total*)	82,002,000	80,985,000	72,818,000
Gas Oil & Distillate Stocks (*Bbls. total at refineries*)	23,643,000	24,997,000	25,720,000
Residual Fuel Oil Stocks (*Bbls. total at refineries*)	78,933,000	79,839,000	100,294,000

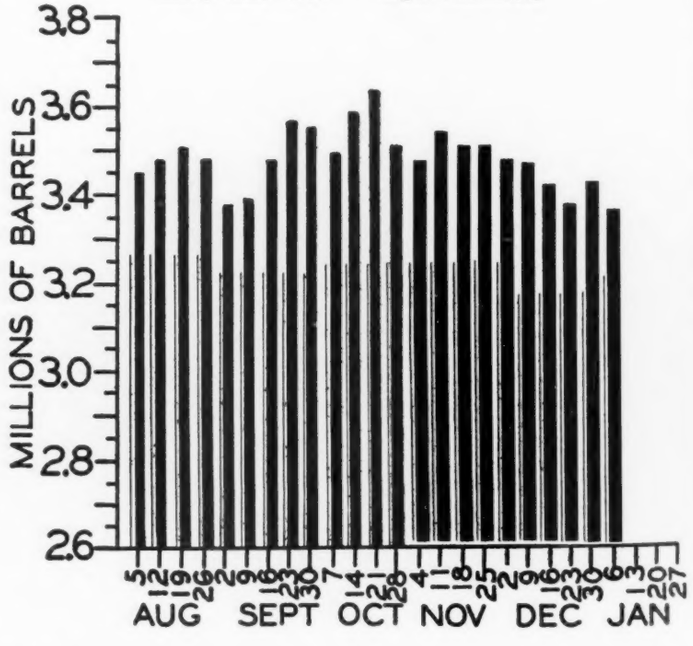
Total U. S. Motor Fuel Stocks

Heavy Line—1939 Light Line—1938



Daily Average Crude Runs to Stills

Heavy Line—1939 Light Line—1938



A. P. I. Weekly Refinery Report

(Figures in Thousands of Barrels of 42 Gallons Each)

Districts	Daily Average Crude to Stills Week Ended Jan. 6	Dec. 30	Per Cent of Reporting Capacity Operated Week Ended Jan. 6	Dec. 30	(a) Gasoline Production Week Ended Jan. 6	Dec. 30	Stocks Total Finished & Unfinished Motor Fuel (b) Week Ended Jan. 6	Dec. 30	Stocks of Gas Oil & Distillates At Refineries Week Ended Jan. 6	Dec. 30	At Terms. Trans. Pipelines Week Ended Jan. 6	Dec. 30	Stocks of Residual Fuel Oil At Refineries Week Ended Jan. 6	Dec. 30	At Terms. Trans. Pipelines Week Ended Jan. 6	Dec. 30
East Coast	602	586	97.9	95.3	1,644	1,608	18,613	18,910	4,436	5,061	5,295	5,889	3,983	4,302	3,663	3,965
Appalachian	126	132	86.9	91.0	465	487	3,568	3,544	272	286	177	186	475	455	.....	.....
Ind., Ill., Ky.	509	516	87.0	88.2	2,029	2,005	12,477	11,939	3,472	3,717	671	727	2,799	2,727	42	61
Okla., Kans., Mo.	256	258	74.9	75.4	(c)929	(c)915	7,107	6,918	1,495	1,564	25	24	2,475	2,405	.....	.....
Inland Texas	95	117	59.7	73.6	429	509	1,654	1,754	370	388	.....	.....	1,748	1,810	.....	.....
Texas Gulf	783	798	82.4	84.0	2,422	2,600	12,328	11,961	3,796	3,897	641	644	5,421	6,056	210	230
La., Gulf	111	109	63.4	62.3	292	266	2,294	2,399	794	1,039	23	28	767	902	267	271
No. La., Ark.	43	43	78.2	78.2	150	146	485	500	243	244	9	7	570	521	.....	.....
Rocky Mt.	28	29	43.8	45.3	188	173	1,157	1,123	143	145	.....	.....	417	418	.....	.....
California	443	486	59.5	65.2	1,355	1,399	16,589	16,277	7,852	7,876	1,699	1,682	58,213	58,093	22,132	22,314
Total Reporting	2,996	3,074	78.1	80.2	9,903	10,108	76,272	75,325	22,873	24,217	8,540	9,187	76,808	77,689	26,314	26,841
U. S. Total (d)	3,370	3,445			11,449	11,686	82,002	80,985	23,643	(e)24,997	8,540	9,187	78,933	(e)79,839	26,314	26,841
U. S. Total 1-6-39 (d)	3,213				10,874		72,936		25,720		9,871		100,294		17,761	

(a) Includes straight-run, cracked and natural blended.
(b) Includes stocks at refineries, in bulk-terminals, pipe lines and in transit.
(c) 12% of reporting capacity in this district did not report gasoline production.
(d) Estimated, U. S. Bureau of Mines basis.
(e) For comparability with last year these figures must be increased by stocks "At Terminals, etc." in California district.

REFINING TECHNOLOGY

INCLUDING INTERNATIONAL PETROLEUM TECHNOLOGY

Dear Reader:

Straws now blowing past in the winter breezes seem to indicate that a new jump in automobile compression ratios is imminent. In the five years between 1932 and 1937 the average compression ratio of U. S. passenger car models rose from 5.3 to 1 to about 6.3 to 1. Then the curve flattened out with virtually no change in the average in 1938 and 1939 model cars.

The average of standard 1940 cars is up to 6.4 to 1. This change results from Hudson's new 112 with a compression ratio of 7 to 1, the stepping up of other Hudson models from 6.25 to 1 to 6.5 to 1; the new Studebaker champion 6 with a compression ratio of 6.5 to 1 and the action of Willys in building compression ratio from 5.7 to 1 to 6.48 to 1.

The flatness of the compression ratio curve for the past three years was explained last June by J. B. Maccauley, Jr., of Chrysler Corp., at the mid-year meeting of the A.P.I. He pointed out that engine difficulties increase as the compression ratio rises with torsional crankcase vibration increasing 40 per cent between 6:1 and 8:1 compression ratios. Increasing roughness and decreasing volumetric efficiency have tended to cancel out gains in power output made possible in theory by increasing the compression ratios.

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With refiners now increasing the octane rating of their gasolines and actually changing its chemical composition as a result of new refining methods it seems possible that the trend of the compression ratio curve may bend upwards again soon. That is true because engine roughness seems to be reduced by some of the new gasolines now on the market.

Within the past few months in which gasolines in the east have been changed radically a considerable number of motorists have told this writer that their motors now run more smoothly and quietly than they have in the past. Questioned about the effect of changing gasolines these average motorists have compared improved performance to that which may be noticed usually on rainy or foggy days when the atmosphere is full of moisture. The motorists from whom this testimony has been gathered are of the "man in the street" type, not persons familiar with this industry.

Assuming that engine roughness can be eliminated by changes in gasoline quality it is not unreasonable to expect that automobile manufacturers will go to supercharging or some other method of improving the "breathing" of their cars so that they can take greater advantage of higher compression ratios and make progress on other problems. The next decade may see another sharp spurt in compression ratios as automobile manufacturers design smaller, faster motors and refiners make a still better gasoline.

★ ★ ★

Oil refining has become a safe job. Standard of Indiana, for example, set up the impressive record in 1938 of only 1.46 disabling injuries per million man hours and 9 days lost per 100,000 man hours. Standard of Indiana had 6092 workers in refining that year.

Mid-Continent Petroleum Corp. with 1052 refinery workers lost only 5 days per 100,000 man hours and had 3.22 disabling injuries per million man hours.

These are records which won accident prevention certificates from the American Petroleum Institute. But the leaders are not far ahead of the group as a whole. This past year workers in refining lost more time because of illness than on account of accidents. Common colds did more damage than mashed fingers. Injuries to refinery workers occur in the following order of frequency: cuts, abrasions, bruises, strains, burns, foreign bodies in eyes, fractures, puncture wounds, hernias, gas effects and heat effects.

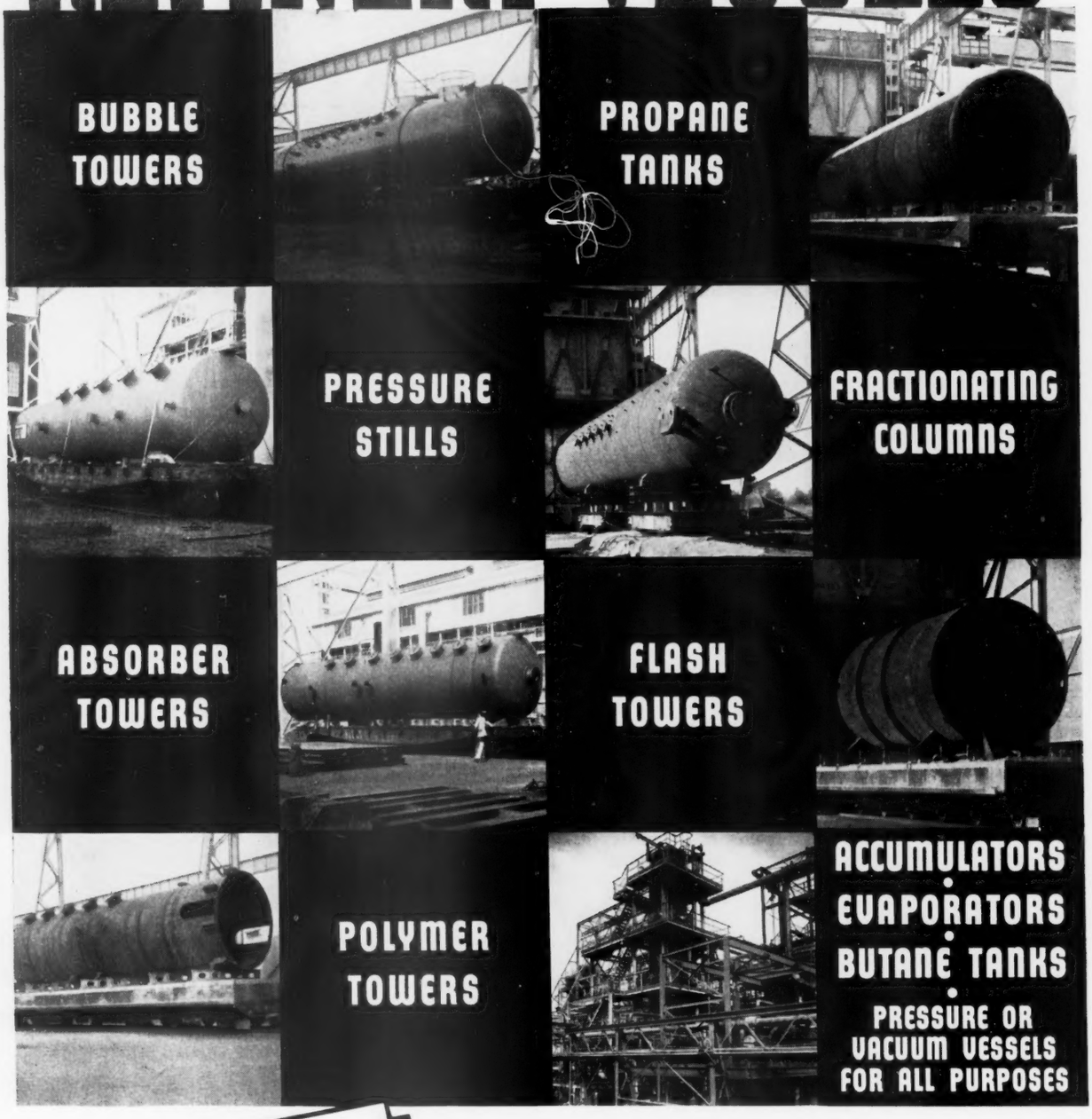
Average lost time per disabling injury is 43 days and average cost is $270 according to reports gathered by Dr. James W. Long, chairman of the National Safety Council's petroleum section health committee and medical director of Gulf Oil Corp's. Port Arthur, Texas, refinery.

Yours truly,

J. C. Chatfield

Managing Editor,
Refining Technology Edition.

REFINERY VESSELS



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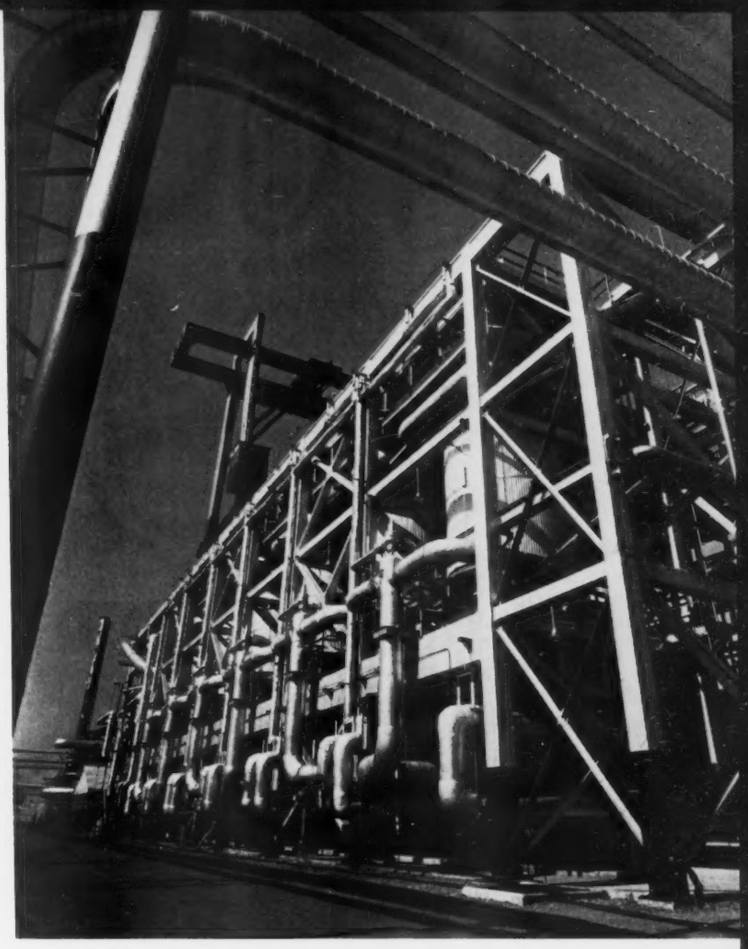
1939 Refinery Building Brings Turning Point In Gasoline Processing



By M. G. Van Voorhis
N. P. N. Staff Writer

THE year 1939 will probably go down in the annals of petroleum refining as one in which new construction produced a turning point in the manufacture of motor fuel. This is not because of an unusual activity in construction but because it has been a year featured by putting radically different methods of manufacture into commercial operation and big-volume production. The effects of this construction program have already been felt by motorists who are now getting in many localities motor fuel of formerly premium grade anti-knock quality from regular-grade pumps.

Outstanding developments of the year were:

1. Rapid expansion of catalytic polymerization, particularly in small refineries, through installation of UOP midget poly units. First commercial midget poly unit was built about mid-year in 1938.

2. Large scale building of Houdry catalytic cracking plants. After 20 years of development Socony-Vacuum Oil Co. and Sun Oil Co. suddenly announced a $35,000,000 building program.

3. Commercial development of the new sulfuric acid alkylation process for producing 100 octane aviation gasoline and late in the year the completion of pilot plant work on the process for thermal alkylation to produce neohexane which may be used as a base stock for building 115 octane aviation fuel.

Refinery building activity was not impressive as the year opened. The U. S. Bureau of Mines found that plants under construction on Jan. 1, 1939 had an aggregate capacity of 142,250 barrels per day. This compared with 283,020 barrels of capacity under construction on Jan. 1, 1938.

One of the early 1939 announcements told of the building of 150,000 barrels of catalytic cracking capacity. From

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January 10, 1940

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U. S. Refinery Construction in 1939

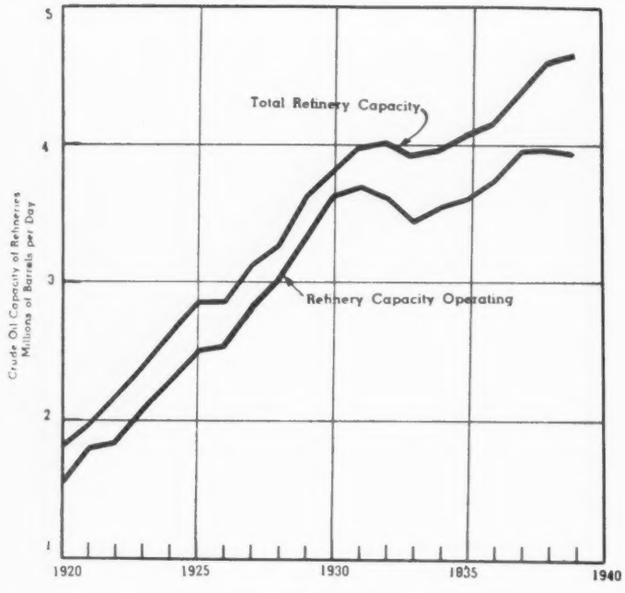
From published news items and reports of builders, equipment manufacturers, and refiners

Oil Company	Plant Location	Type Plant	Capacity Bbl. day	Cost	Date Completed
Anco Refining Co.	Garnett, Kan.	Expansion	.....	.....	*January
Arkansas Fuel Oil Co.	Bossier City, La.	Cracking; reforming	2,000	.....	*March
Arkansas Fuel Oil Co.	Bossier City, La.	Thermal poly.	11,000 to 20,000	.....	April
Advance Refining Co.	Centralia, Ill.	Ethyl blending	.....	$15,000	November
Allied Oil Corp. (Ill.)	St. Elmo, Ill.	Skim. plant	4,000	.....	.....
Atlantic Refg. Co.	Philadelphia	Crude stripper	22,500	$1,200,000	August
Atlantic Refining Co.	Philadelphia	U.O.P. Non-selec. poly	2,380	.....	.....
Atlantic Refg. Co.	Philadelphia	Coke unit	7,500	$550,000	November
Barber Asphalt Corp.	Barber, N. J.	Perco liq. sweetening	3,000	.....	*April
Ben Franklin Ref. Co.	Ardmore, Okla.	Dubbs cracking, poly. Skimming and sweetening	2,000 2,500	.....	†June December
Barnsdall Ref. Corp.	Corpus Christi	Skimming	10,000	$400,000 $250,000	*August
Barnsdall Ref. Corp.	Wichita, Kan.	U.O.P. poly	1,500,000 cu. ft.	.....	.....
Bradford Oil Ref. Co.	Bradford, Pa.	Wax deoiling	200	$30,000	Jan. '40
Bell Oil & Gas Co.	Grandfield, Okla.	Remodeling	.....	$100,000	.....
Big West Oil Co.	Kevin, Mont.	U.O.P. poly	200,000 cu. ft.	.....	.....
Cushing Ref. & Gaso. Co.	Cushing, Okla.	Skimming	.....	.....	July
Cascade Ref. Co.	Salem, Ill.	.....	2,000	.....	†October
Central Ill. Oil & Ref. Co.	Central City, Ill.	Skimming	2,000	.....	October
Caro Refineries	Tuscola Co., Mich.	.....	1,000	.....	October
Continental Oil Co.	Ponca City, Okla. McKinley Co., N. M.	Cross thermal cracking Combination topping	7,000 1,000	$1,200,000	†November December
Canton Refining Co.	Canton, O.	Dubbs heater, U.O.P. poly	500	.....	*April
Coltex Ref. Co.	Colorado, Tex.	Asphalt blending	2,000	$1,500,000	†Indefinite
Consolidated Oil Corp.	.....	U.O.P. catalytic cracking	.....	.....	*January
Co-op. Ref. Assn.	Phillipsburg, Kan.	Dubbs cracking. Catalytic poly.	1,500	$750,000	December
Cosden Pet. Corp.	Graham, Tex.	Skimming and absorption natural gasoline	1,000	$75,000	June
Cosden Pet. Corp.	Big Spring, Tex.	Skimming, absorption natural gasoline, U.O.P. poly	.....	.....	.....
Cities Service Oil Co.	East Chicago, Ind.	Stabilizer	.....	$475,000	February
Cities Service Oil Co.	East Chicago, Ind.	Thermal poly.	2,000	$225,000	March
Cities Service Oil Co.	Ponca City, Okla.	Wax presses	500	$22,000	May
Crystal Refining Co.	Carson City, Mich.	Skimming	1,000	$25,000	June
Deep Rock Oil Corp.	Cushing, Okla.	Repair and modernization	5,000	$50,000–$70,000	†Summer
Derby Oil Co.	Wichita, Kan.	U.O.P. poly	1,100,000 cu. ft.	.....	.....
Eagle Oil & Ref. Co.	Santa Fe Springs, Cal.	Dubbs Cracking	1,500	.....	May
Evansville Ref. Co.	Evansville, Ind.	.....	3,000	.....	May
Ethyl Gasoline Corp.	Baton Rouge, La.	.....	.....	$4,000,000	*November
Fairfield Ref. Co.	Merriam, Ill.	Refining	2,000	.....	*September
Falcon Ref. Co.	Great Bend, Kan.	Cracking	900	$200,000	*March
Ft. Dale Oil & Ref. Co.	Bloomingdale, Mich.	.....	1,500	$18,000	July
Fletcher Oil Co.	Wilmington, Calif.	Dubbs Cracking	1,000	.....	.....
Fletcher Oil Co.	Wilmington, Calif.	Poly. unit	500,000 cu. ft.	.....	December
Freedom Oil Co.	Freedom, Pa.	U.O.P. poly	250,000 cu. ft.	.....	.....
Glenco Refining Co.	Bloomingdale, Mich.	Skimming	1,500 to 2,000	.....	July
(Wm. E. Hughes Estate)	Alamosa, Colo.	Dubbs cracking	1,000	.....	November
General Ref. Co.	Grand Haven, Mich.	Skimming	500	.....	*September
Gulf Ref. Co.	Port Arthur	Aviation gasoline	.....	$2,000,000	March '40
Grand River Ref. Co.	Grandville, Mich.	.....	4,000	$35,000	.....
Glacier Production Co.	Cut Bank, Mont.	Dubbs cracking	2,125	.....	June
Glacier Production Co.	Cut Bank, Mont.	Poly. and Skimming	3,300	.....	June
Glacier Production Co.	Cut Bank, Mont.	Sweetening liquid Perco	2,000	.....	June
Gramps Oil & Refg. Co.	Alamosa, Colo.	Dubbs cracking	700	.....	.....
Humble Oil & Ref. Co.	Baytown, Tex.	Alkylation	2,700	.....	.....
Hambleton Term. Corp.	Tonawanda, N. Y.	.....	5,000	$1,200,000 to $1,500,000	April '40
H. S. & B. Refining Co.	Mills Shoals, Ill.	Refining	1,200	.....	†September
Home Oil Ref. Co.	Great Falls, Mont.	Poly. plant	.....	.....	January
Hayden Mann & Assoc.	Manchester, Mont.	.....	100	.....	*April
Independent Ref. Co.	Laurel, Mont.	Cracking furnace	2,500	$60,000	.....
Independent Ref. Co.	Laurel, Mont.	Caustic Soda regen.	.....	$50,000	December
Inland Empire Refs.	Spokane	Refining and cracking	2,000	.....	February
Indian Oil & Ref. Co.	Mt. Vernon, Ind.	Dubbs cracking	5,000	.....	†April
Indiana Farm Bureau Coop.	Mt. Vernon, Ind.	.....	2,500	$250,000	†November
Imperial Refining Co.	Grandville, Mich.	Petreco desalting	4,000	$250,000	December
Johnson Oil Supply Co.	Gary, Ind.	Skimming	1,000–1,500	.....	June
Kendall Refining Co.	Bradford, Pa.	U.O.P. Catalytic Poly.	1,000,000 Cu. ft. gas	.....	May
Kendall Refining Co.	Bradford, Pa.	Phenol extract.	750	.....	January '40
Lake State Oil & Ref. Co.	Bloomingdale, Mich.	.....	500	.....	*May
Lion Oil Refining Corp.	Eldorado, Ark.	Cracking	4,400	.....	.....
Lion Oil Refining Corp.	Eldorado, Ark.	Reform.	1,200	.....	.....
Motor Fuels Corp.	Levelland, W. Tex.	Cracking and skimming	1,500	$185,000	†April
Mid-Continent Pet. Corp.	Tulsa	Gasoline prod. and Kellogg	.....	$800,000	*May
Muenster Ref. Co.	Muenster, Tex.	.....	1,000	.....	*May
Model Oil & Ref. Co.	Kilgore, Tex.	Refining	2,500	$150,000	July
Matthews, R. G.	St. Louis	Skimming	3,000	.....	August
Marvel Refining Co.	Grand Rapids, Mich.	.....	500–750	.....	.....
Mankins Ref. Co.	K-M-A field	Skimming	1,500	.....	.....
Magnolia Pet. Co.	Beaumont, Tex.	Houdry cracking	16,700	.....	February
Magnolia Pet. Co.	Beaumont, Tex.	Houdry cracking	17,800	.....	September
Magnolia Pet. Co.	Beaumont, Tex.	Alkylation (acid)	2,140	$1,000,000	December
Midwest Refineries, Inc.	Alma, Mich.	Dubbs cracker	.....	$250,000	May
Mid-West Refineries, Inc.	Alma, Mich.	U.O.P. poly	500,000 cu. ft.	.....	.....
Mohawk Petroleum Corp.	Bakersfield, Cal.	Dubbs cracking	1,700	.....	.....
N. American Oil Ref. Co.	Chinook, Mont.	Topping	500	.....	*February
National Refining Co.	Coffeyville, Kan.	Dubbs cracking	4,200	$135,000	December
Northwestern Ref. Co.	St. Paul, Minn.	Skimming and cracking	1,500	.....	September
Naph-Sol Ref. Co.	Muskegon, Mich.	Dubbs cracking	2,000	.....	.....

U. S. Refinery Construction in 1939

Oilcraft, Inc.	Cement, Okla.	.....	2,000	.....	*July
Ohio Oil Co.	Robinson, Ill.	Rebuild burned unit	.....	$40,000	.....
Pana Ref. Co.	Pana, Ill.	Dubbs cracking unit	1,500	$300,000	*May
Phillips Pet. Corp.	Borger, Tex.	Thermal alkylation	.....	.....	Jan. 1940
Phillips Pet. Co.	Kansas City	Coke equip.—2 new stills	.....	.....	*July
Pennzoil Co.	Oil City, Pa.	U.O.P. Polymerization	4,000	.....	May
Pacific States Oil & Terminals Co.	Wilmington, Cal.	Cracking unit	.....	.....	.....
Built for various companies by Petroleum Rectifying Co. of California	Mich., Ky., Ark., La., and Texas	27 Units	50,000	.....	.....
Producers Refining Co.	Shelby, Mont.	.....	3,000	.....	*January
Producers Refining, Inc.	West Branch, Mich.	2500 Bbl. heater	.....	.....	December
Producers Refining, Inc.	West Branch, Mich.	Petreco desalter and vacuum tower	.....	.....	†December
Pathfinder Pet. Co.	Los Alamitos, Cal.	Light oil cracking thermal	1,000	$250,000	November
Potter Bros. Pipe Line Co.	Salem, Ill.	.....	2,500	.....	*July
Pennant Refining Co.	Princeton, La.	.....	.....	.....	November
Peerless Purchase Co.	Kalamazoo, Mich.	.....	3,000	.....	November
Pantegon Ref. Co.	Starks, Mich.	New still and tower	4,000	.....	*November
Panhandle Ref. Co.	Wichita Falls, Tex.	Replacements	.....	$100,000	May, 1940
Quaker State Oil Ref. Co.	Farmer's Valley, Pa.	Furfurel solvent	.....	.....	†December
Quaker State Oil Ref. Co.	St. Marys, W. Va.	Furfurel solvent	.....	.....	†December
Quaker State Oil Ref. Co.	St. Marys, W. Va.	Dubbs cracking	1,250	.....	.....
Quaker State Oil Ref. Co.	Emlenton, Pa.	Boiler house	.....	.....	*November
Quaker State Oil Ref. Co.	Emlenton, Pa.	Dubbs cracking and poly	1,250	.....	.....
Richfield Oil Corp.	Watson, Calif.	Stratcold acid-treat	10,000	$500,000	*January
Richfield Oil Corp.	Watson, Calif.	2 Combination-cracking topping	50,000	$5,000,000	1938
Roy Rose Interests	Springfield, Ill.	Dubbs	4,000	.....	July
Robineau, M. H.	Hastings, Neb.	.....	3,000	.....	*August
Russell Oil Co.	Harrisburg, Tex.	Refining	1,750	.....	.....
Republic Oil Co.	Texas City	Cracking	8,000	$850,000	April, 1940
Root Petroleum Co.	Eldorado, Ark.	U.O.P. poly	1,050,000 cu. ft.	.....	.....
Roosevelt Oil Co.	Mt. Pleasant, Mich.	Vacuum unit, boiler plant, and tube still	800	$100,000	December
Sunray Oil Co.	Allen, Okla.	Catalytic poly.	.....	.....	June
Shell Union Oil Co.	.....	U.O.P. Catalytic cracking	.....	.....	*January
Shell Oil Co.	Wood River, Ill.	U.O.P. Combination cracking and coke	18,000	.....	Before Jan. 1, 1940
Shell Oil Co.	Houston	Alkylation	1,500	$1,000,000	December
Shell Oil Co.	Dominguez, Cal.	Alkylation	800	.....	.....
Shell Oil Co.	Martinez, Cal.	Alkylation	500	.....	.....
Shell Oil Co.	Wood River, Ill.	Alkylation	1,500	.....	.....
Shell Oil Co.	Wood River, Ill.	Expansion and modernizing	25,000	$8,000,000	(18,000 Dubbs cracking, hi-press boiler, coke plant, 25,000 topping and other equipment.)
Southport Pet. Co.	Henderson, Ky.	.....	3,000	.....	*May
Socony-Vacuum Oil Co.	Paulsboro	Houdry cracking	12,700	.....	Jan. 1940
Socony-Vacuum Oil Co.	Detroit	Houdry cracking	19,400	.....	1939
Socony-Vacuum Oil Co.	Brooklyn, N. Y.	Houdry cracking	12,000	.....	1939
Socony-Vacuum Oil Co.	Buffalo, N. Y.	Houdry cracking	16,000	.....	1939
Socony-Vacuum Oil Co.	E. St. Louis, Ill.	Houdry cracking	18,400	.....	Jan. 1940
Socony-Vacuum Oil Co.	Augusta, Kans.	Houdry cracking	23,500	.....	Jan. 1940
Slagter, A. J.	N. W. Ky.	Skimming	1,000	$50,000	May
Sinclair Refining Co.	Sand Springs, Okla.	Replacement and repair	.....	.....	July
State Refining Co.	Grand Rapids, Mich.	Skimming	1,500	$75,000	
Skelly Oil Co.	Eldorado, Kan.	Polyco polymerization	500	$175,000	Jan. 1940
Sun Oil Co.	Marcus Hook, Pa.	Houdry Cracking	28,000	.....	1939
Sun Oil Co.	Toledo, O.	Houdry Cracking	28,000	.....	November
Standard Oil Co. of La.	Baton Rouge, La.	Gen. Improvements	.....	$3,000,000	†October
Standard Oil Co. of La.	Baton Rouge, La.	Alkylation	1,350	.....	June 1940
Standard Oil Co. of Ohio	Latonia, Ky.	Perco liquid treater	1,200	.....	*July
Standard Oil Co. of Ohio	Latonia, Ky.	Perco solid treater	750	$6,000	
Standard Oil Co. of Ohio	Toledo	Polyco Catalytic poly.	500	$300,000	November
Standard Oil Co. of New Jersey	Bayonne, N. J.	Alkylation	175	.....	.....
Taylor Refining Co.	Corpus Christi	Naphtha Rerun	5,000	.....	.....
Taylor Refining Co.	Corpus Christi	Gaso. stab. unit	3,000	.....	.....
Taylor Refining Co.	Corpus Christi	Crude unit	10,000	.....	February
Taylor Refining Co.	Nueces County Texas	Refining unit	15,000	.....	February
The Texas Co.	.....	U.O.P. Catalytic cracking	.....	.....	*January
The Texas Co.	Port Arthur, Tex.	Alkylation	750	$1,000,000	.....
The Texas Co.	Lawrenceville Kan.	Dubbs cracking and poly	3,600	.....	.....
The Texas Co.	West Tulsa, Okla.	U.O.P. poly	960	.....	.....
The Texas Co.	Dallas, Texas	U.O.P. poly	1,680	.....	.....
Talco Asphalt Ref. Co.	Mt. Pleasant, Tex.	.....	5,000–8,500	.....	.....
Terminal Ref. Co.	Corpus Christi, Tex.	Skimming	15,000	.....	February
Tri-State	Spottsville, Ky.	.....	500	.....	.....
Travis, M. M., Inc.	Kilgore, Tex.	Tetra-Ethyl plant	.....	.....	*August
Troy Refining Co.	Evansville, Ind.	.....	2,500	.....	.....
Transportation Oil & Ref. Co.	Dupo, Ill.	Skimming	1,500	.....	*November
Taxman Oil Co.	Rock Island, Ill.	Refining	1,500	.....	*August
Taxman Ref. Co.	Centralia, Ill.	Cracking	.....	.....	.....
Terry Carpenter, Inc	Scottsbluff, Neb.	Skimming-cracking	600	.....	August
Tide Water Assoc. Oil Co.	Drumright, Okla.	U.O.P. poly	2,210,000 cu. ft.	.....	.....
Utah Refining Co.	Kilgore, Tex.	.....	.....	$150,000	June
Union Oil Co. of Calif.	Wilmington, Cal.	Alkylation	270	.....	.....
Union Oil Co. of Calif.	Los Angeles, Cal.	.....	.....	$1,250,000	*August
Union Oil Co. of Calif.	Oleum, Cal.	.....	.....	$750,000	*August
Union Oil Co. of Calif.	Oleum, Cal.	U.O.P. poly	1,370,000 cu. ft.	.....	.....
United Ref. Co.	Warren, Pa.	U.O.P. poly	1,000,000 cu. ft.	.....	.....
Waggoner Ref. Co.	Electra, Texas	U.O.P. poly	500,000 cu. ft.	.....	.....
Wisconsin Oil & Ref. Co.	Milwaukee, Wis.	Dubbs cracking and reform.	5,000	.....	.....
Westoak Gasoline Co.	Sayre, Okla.	Perco solid treater	.....	.....	.....
Wright, J. B.	Magnolia, Ark.	Refinery	2,000	.....	.....
Wabash Ref. Co.	Sandoval, Ill.	.....	750	.....	June
Wisconsin Ref. Co.	Cudalay, Wis.	U.O.P.	5,000	$500,000	*July
.....	.....	3 U.O.P. poly. units	9,550	.....	1939

*Announced. †Started.



Illustrating the remarkable growth in refinery capacity since 1920. Total refinery capacity was 2.5 times as great at the beginning of 1939 as in 1920. Furthermore, crude runs in 1920 were only 55% of refinery capacity as compared with 72% in 1939.

then on building boomed. The accompanying tabulation of 1939 refinery building projects will show how construction activity increased as the year progressed.

The tabulated additions to refining capacity, i.e., topping, cracking and reforming only, add up to over 500,000 barrels without including many plants for which data is not available. New capacity added in 1938 totaled 378,350 barrels according to Bureau of Mines reports. The 1939 figure as tabulated is subject to some reduction due to overlapping with 1938 and 1940 and to increase from unreported new capacity.

FEW figures are available for estimating dollar volume of construction. Although only about $71,000,000 has been reported, it is probably safe to multiply this by three, thus making a total somewhat over $200,000,000. Cost figures are given for about 40% of the reported construction projects.

The year was notable not only for putting catalytic cracking into large-scale operation but for an extensive increase in the utilization of refinery and natural gases as raw materials for the manufacture of motor fuels. These gases, besides being sources of raw materials for the manufacture of motor fuel, are made into the highest grade of motor and aviation fuels. Since 100-octane aviation fuels are dependent upon processes for converting gases to motor fuels, the current European war and U. S. military requirements were a stimulus to new refinery construction during the year.

A further factor favoring increase in construction during 1939 is the fact that motor fuel demand during the year was considerably ahead of 1938. During the first 10 months motor fuel demand was over 100,000,000 gallons more than for the same period in 1938. This is an increase of nearly six per cent. If such an increase had occurred every year since 1929, present demand would be nearly 80 per cent more than that year. Actually the past ten years has seen an increase of about 55 per cent in motor fuel demand.

The urge of competition is also an important factor. The development of processes for producing a higher quality and at the same time a larger percentage of motor fuel from a given quantity of crude oil would logically be expected to be followed by a scramble to find methods of bringing products of older processes up to at least equivalent quality.

Keenness of interest on the subject of knock rating of motor fuels was nowhere better shown than at the recent annual meeting of the American Petroleum Institute. Almost every speaker on refining methods laid emphasis upon what can be done to antiknock quality of gasoline by improved processes. Even treating methods have been studied with this in mind and improved response to additions of tetraethyl lead brought about in this way.

While Houdry catalytic cracking has been the outstanding commercial development of the year and has been much in the limelight, other catalytic processes for cracking and reforming have been under development and the veiled reports and rumors of 1939 may be expected to come out into the open at any time. The report early in the year that The Texas Co., Consolidated Oil Corp., and Shell Oil Co. were to spend "several million dollars" to build Universal Oil Products Co. catalytic cracking plants has not been amplified. Rumors of installations of catalytic cracking or reforming units by M. W. Kellogg Co. also remain as rumors. However, it was estimated by Arch L. Foster, The Lubrizol Corp., at the annual meeting of the National Petroleum Association in September that about 72,000 barrels per day of catalytic cracking and reforming not Houdry have been built in this country and abroad.

THE fully verified facts of most significance in refinery construction in 1939 are that at least 150,000 barrels per day of charge stock will be cracked catalytically in 1940; at least 11,500 barrels per day of high-octane alkymer gasoline and iso-octane will be produced in 1940 from refinery and natural gases, and possibly double the quantity of polymer gasoline and iso-octane being produced a year ago will be produced this year.

It is of further significance that whatever additional production results from alkylation and polymerization is a direct addition to gasoline production without additional consumption of crude oil. Thus, present alkylation units alone will add about eight per cent to present motor fuel production while the product will be of aviation fuel quality.

The accompanying tabulation of known refinery construction in the United States is far from complete but it does give some idea of the extent of construction during the past year. The table makes it evident that modernization and expansion has been widespread and varied. There is a noticeable activity in the Illinois field in construction of new refineries, particularly topping plants. In lubricating oil refining, solvent extraction methods are winning more converts. While natural gasoline plants are not listed in this table there has been extensive construction in this type of plant. The natural gasoline plant is a possible source of feed stock for alkylation and equipment has been installed in a few of these plants to separate out a portion of the raw material for alkylation.

A portion of the construction reported in the tabulated summary may belong in 1938 and another portion in 1940 if strict adherence of dates were observed. However, all known dates of completion are reported and these will enable determination of the time for the major part of the construction program. Where completion dates are not known, starting dates are given, and if this is unknown the date of announcement is given.

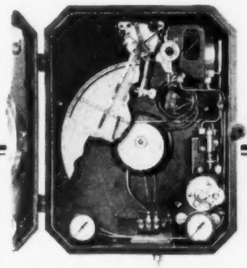
Versatile new Taylor Fulscope offers new operating characteristics and advanced design features—opens up new opportunities for careful, money-saving process control

HERE'S good news for you! Now you can control more effectively than ever the many variables existing in refinery and gasoline plant operation. The new Taylor Fulscope Controller is easily adaptable and completely adjustable to changing processing conditions. Its promise of better all-round performance in the face of excessive time lags, large capacities, and severe load changes, has already been accepted as proved facts by refinery engineers who have seen it in action.

This new Fulscope can, by simple addition of unit assemblies, be quickly converted from the simplest to the most complex controller. This means you can have in one instrument any of five general forms of control, the one best suited to your particular needs. Three of these, including Adjustable Sensitivity with Automatic Reset, are strictly conventional forms. Two new ones are added, which go far beyond ordinary control performance. Be sure to look into it right away.

From the smallest screw to the unit construction of different assemblies, the design features of this new controller offer you important advantages in process efficiency and economy. Read carefully the list shown on this page. Learn the other interesting features of this development which ranks so high among others perfected by Taylor research and engineering.

Ask a Taylor Representative to give you the full story of the new Fulscope. Or write direct to us. There's no obligation to you. Taylor Instrument Companies, Rochester, N. Y. Plant also in Toronto, Canada. In Great Britain: Short & Mason, Ltd., London, Eng.



INTERIOR VIEW of new Taylor Fulscope Controller mechanism. Die-cast aluminum case is drilled to hold the most complex control systems, which may be installed at a later date. Elimination of separate pen lifter and hub nut makes chart-changing a one-hand operation. Note instant access to dials and knobs without need for removing chart.

CHECK THESE DESIGN FEATURES OF THE NEW TAYLOR FULSCOPE CONTROLLER:

Universally applicable—Same control mechanism for temperature, pressure, rate of flow, and liquid level in both recording and indicating types.

Completely pneumatic sensitivity reduction assures consistent performance throughout the entire sensitivity range.

Interchangeable unit construction—Conversion from one form to another made easily in the field. No soldered joints, no screws to drop. Cases drilled and tapped to accommodate most complex forms of control.

Interchangeable actuating system—Pre-calibrated as always, and easier than ever to change.

Forms available—Automatic Reset and/or Pre-act with one or two control mechanisms.

Magnifying adjustment dials—calibrated in absolute units, easier to read and adjust.

Convertible—from direct to reverse action—easily and simply.

Mounting—Universal die-cast aluminum case for face or flush mounting.

Clocks—Improved electric type, with all gears immersed in oil. Spring-driven clocks an alternate. Explosion-proof electric clocks also available.

All filters—Inbuilt, easily cleaned—are more efficient and accessible. Supplement large filter and drip well.

Chart-changing mechanism improved, simplified. Rapid, easy.

Long life assured—vital parts of 18-8 stainless steel. Neoprene gaskets used throughout.

Taylor

Indicating Recording Controlling

TEMPERATURE, PRESSURE, FLOW *and* LEVEL INSTRUMENTS

Veteran Authority on Catalysis Awarded Willard Gibbs Medal

DR. VLADIMIR N. IPATIEFF, whose photograph appears on the cover of this week's issue, recently was awarded the 1940 Willard Gibbs Medal of the Chicago section of the American Chemical Society. Dr. Ipatieff is director of chemical research at the Riverside, Ill., laboratories of Universal Oil Products Co. He also is professor emeritus at Northwestern University where he directs research in high pressure synthesis.

Dr. Ipatieff is the second recipient of the Willard Gibbs Medal who has won the honor as a result of contributions to the oil industry. First oil man to win the medal was Dr. William H. Burton of Standard Oil Co. of Indiana, who is recognized as the father of commercial cracking.

Chemical achievements of Dr. Ipatieff in the field of catalysis and high pressure synthesis date back to 1897 when he laid the foundation for the modern synthetic rubber industry through his synthesis of isoprene. During the first World War Dr. Ipatieff was in charge of all chemical work of the Russian government. He held the rank of general.

After the Revolution Dr. Ipatieff was made president of the Central Chemical Bureau. He founded the High Pressure Research Institute and for this was given the Lenin prize. He came to the United States in 1931 to become professor of chemistry at Northwestern. Since coming to this country he has become an American citizen.

The medal jury which made the award to Dr. Ipatieff was headed by Dr. Cary R. Wagner of The Pure Oil Co. In a statement explaining the choice the jury said that "his discoveries of catalytic dehydration, hydrogenation, dehydrogenation and polymerization have placed his work in a commanding position for the past four decades and are the basis for many industrial processes, particularly in the refining of petroleum and synthesis of hydrocarbons.

"Between 1900 and 1933 his researches were published almost entirely in Russian and German publications. In the last eight years he has been able to start research afresh in a new land with results that have been very far-reaching. His newer researches have extended the chemistry of the hydrocarbons greatly. He has developed a polymerization process to make high octane gasoline.

"In 1897 in the laboratory of Professor Adolf von Bayer, Ipatieff synthesized for the first time isoprene, building stone of the complex rubber molecule, thus making possible the later synthesis of artificial rubber. In 1901 he began research in catalytic reactions under high pressures while working in the Laboratory of the Academy of Artillery in St. Petersburg. He noticed, in 1901, the effect of catalysts on the decomposition of compounds, especially alcohols under high pressures and elevated temperatures. Simultaneously he discovered a method of making olefins from alcohols by passing the latter over alumina, a catalyst. Olefins have become the 'raw' material for many organic compounds. The discovery was of very great industrial importance.

"Dr. Ipatieff in 1903 and 1904 experimented extensively with the use of high pressures in the hydrogenation of various organic compounds, and these experiments were the forerunner of the Bergius process by which motor fuel is produced from coal. In 1905 he first introduced high pressures in polymerization of ethylene and other olefins. Continuing studies of polymerization in the presence of various catalytic agents, he found a catalyst which allows the transformation of a portion of the olefin-containing gases from cracking operations into an excellent high octane gasoline.

"The work of Dr. Ipatieff in catalysis during the last 35 years enriched science by several major discoveries. He discovered several new catalytic agents, such as iron, zinc, manganese and their dioxides, important in the manufacture of dyes and fuels. He also first indicated the action of promoters, substances which aid catalysts, on the accelerated activity of catalytic agents. He has developed the chemistry of the paraffin hydrocarbons, compounds from which motor fuels and lubricants are made."

Dr. Ipatieff was born in Moscow on Nov. 9, 1867. He was graduated from the Academy of Artillery in St. Petersburg in 1892, and received the doctor of chemistry degree from the University of St. Petersburg in 1907. He was professor of chemistry at the Academy from 1898 to 1906, and at the University from 1906 to 1915. From 1914 to 1917 he was general lieutenant of the Russian Artillery besides being chairman of the Chemical Committee of Russia.

Dr. Ipatieff holds honorary doctorates from the Universities of Munich and Strasburg. He was elected a member of the Russian Academy of Science in 1915, and was recipient of the large and small decorations of A. I. Boutlerov and the large decoration of Ivanoff. He is Berthelot Medalist, and a Commander of the Cross of the Legion of Honor of France. He is also a member of the Academy of Science of Goettingen, Germany, and an honorary member of the Deutsche Chemische Geselschaft.

At Baltimore last April the Petroleum Division of the American Chemical Society made Dr. Ipatieff the guest of honor at the annual dinner. This gesture was particularly fitting at the moment because the Baltimore meeting was largely given over to a symposium on the application of catalysis to oil refining.

To indicate his gratitude at the cordial reception given him and his work here in the United States Dr. Ipatieff endowed a chair of high pressure synthesis at Northwestern last spring. Universal Oil Products joined him in the gift by supplying equipment for the laboratory to be used by the occupant of the chair.

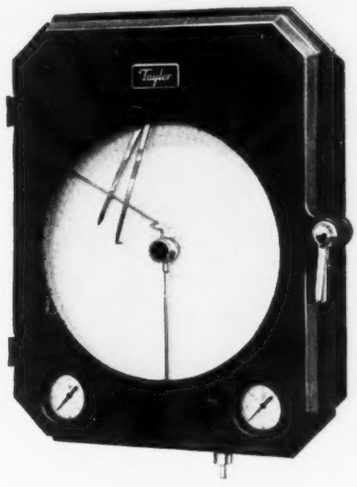
Throughout his long career Dr. Ipatieff has been a large contributor to the technical literature. In the past six years alone nearly 50 scientific articles have come from his pen. Previously more than 200 had been published. He is the author of "Text Book in Organic Chemistry", "Aluminum Oxide as Catalyst", and "Catalytic Reactions at High Pressures and Temperatures", a study which he calls his "chemical autobiography."

The Gibbs medal, of which Dr. Ipatieff is the twenty-ninth recipient, was founded in 1911 by William A. Converse, secretary of the Chicago Section from 1901 to 1909, and was named for Josiah Willard Gibbs, professor of mathematical physics at Yale University from 1871 to 1903, called "America's greatest man of science."

Activities OF EQUIPMENT MANUFACTURERS

CONTROLLER—A radically new air-operated controller making available in one instrument the advantages of conventional control and automatic reset, is the way Taylor Instrument Cos. describe its new Fulscope controller. Better all-round performance in refineries and gasoline plants is promised.

The new instrument can be changed from direct to reverse acting in the field with no change of mechanism.



The relation between pointer movement and output pressure is said to be so linear that the instrument may be used as a remote transmitter.

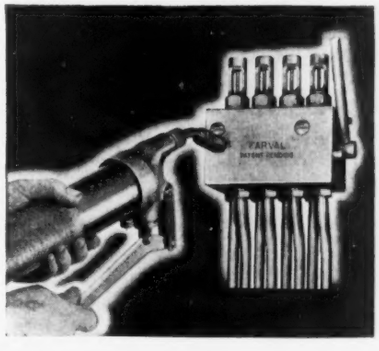
Five general forms of instruments are available. In addition to the three conventional forms—fixed high sensitivity, adjustable sensitivity, and automatic reset—have been added two additional ones using Pre-Act, said to go beyond ordinary control performance and to be easily adjustable.

* * *

COPPUS ENGINEERING CORP., Worcester, Mass., has the following new district representatives: Rees V. Downs, 422 Exchange Bldg., Memphis; Hughes Machinery Co., 342 Mfgrs. Exch. Bldg., Kansas City; and L. D. McKay, 533 Mayo Bldg., Tulsa.

* * *

MULTIPLE GREASE FITTING—A new system for lubricating two to eight bearings from a single grease inlet has been developed by The Farval Corp., Cleveland. A conventional type of hand or power grease gun connected to the inlet nipple is said to assure positive pressure lubrication to all bearings. The amount of lubricant delivered to each bearing is individually adjustable. Movement of a tell-tale indicator stem attached to each valve piston shows that each bearing has received its measured amount of lubricant.



The multiple measuring valves are said to be extremely simple in design and construction, containing no check valves nor springs. The unit is adaptable to industrial machinery.

* * *

COMPRESSOR—A heavy-duty gas-powered compressor is a new product of Ingersoll-Rand Co., 11 Broadway, New York. It was "designed to fill the growing need for large compact, four-cycle units." The "LVG" compressor is built in 485 and 650 Hp. sizes using 6 and 8 V-type power cylinders.

By using only two compressor frames on either side, the inlet, discharge and inter-stage piping and manifolding are said to be simplified and only two stuffing boxes are required.

The LVG incorporates overhead valves and removable wet-type liners in the power cylinders. All auxiliaries, including the camshaft, the built-in recirculating water pump and auxiliary power take-off are driven from the flywheel end of the shaft, a feature said to promote good governing and smooth operation. Bulletin 3073 gives additional information.

* * *

Lewis H. Brown, president, Johns-Manville Corp., has been awarded the Vermilye medal by The Franklin Institute "in recognition of outstanding contribution in the field of industrial management." This is the first award of this medal, which is named after its donor, W. M. Vermilye, vice president of The National City Bank of New York. The medal is purposed to stimulate, encourage, and recognize outstanding contributions in the field of industrial management.

* * *

ELECTRICAL EQUIPMENT—The following new bulletins are announced by General Electric Co.: Rotating-Cam Switches, CR 3300 (GEA-2230A) for motors up to 7½ Hp. (at 440 volts); Squirrel-Cage Induction Motors (GEA-1807B) for 100 to 1500 Hp.; Wound-Rotor Induction Motors (GEA-1698A) of one Hp. and larger; Type RB Motor (GEA-98B), single-phase, repulsion, brush-shifting type, from ½ to 3 Hp.; Pressure and Vacuum Switches, CR2927 (GEA-821G).

* * *

PRESSURE VESSELS—Bulletin 1020 was issued recently by Alco Products Division of American Locomotive Co. to illustrate briefly the types of pressure vessels and heat exchangers built by the company. The bulletin includes charts for calculating shell thickness of pressure vessels from pressure temperature considerations.

* * *

INSTRUMENTS—A 66-page, condensed catalog, just issued, lists the entire line of Leeds & Northrup Co. line of instruments for research and for routine testing in laboratory, plant, and field, for the first time since 1907 under one catalog cover. Requests for catalog E should be addressed to 4934 Stenton Ave., Philadelphia.

* * *

PIPING—To assist in selection of piping, a new 56-page booklet entitled "Corrosion-Resistant Valves and Fittings" has just been issued by Crane Co. Using the "stop and go" colors of red, green, and orange, this booklet contains eight pages of colored reference charts for selecting proper metals for nearly 200 chemical solutions.

The booklet, Circular 312, also includes properties of the alloys and detailed information on the Crane line of valves, fittings, and fabricated piping. It is available at all Crane branches.

C.N.G.A. Adopts New Gas Shrinkage Table

A new table of gas shrinkage for the Charcoal Test, described in the California Natural Gas Association's bulletin, TS-351, will go into effect, Jan. 1, 1940, according to George Tyler, secretary.

This table of factors, reproduced below, replaces Table II in all copies of the Charcoal Test Bulletin now in use.

By referring to the table, it will be noted that the top scale contains the volume of rectified condensate, while the vertical scale contains the volumes of condensage obtained at 30 pounds.

A comparison of the respective volumes for any test gives the shrinkage in gas volume when the gas under test is passed through the charcoal tube. For example: If 26.5 milliliters of condensate is recovered at 30 pounds, and after rectification, 22.5 milliliters remains, the shrinkage value to be added to the amount of gas passed through the tube would be 0.22 cubic feet.

This new table replaces the old table where the cubic feet of gas discharged from a charcoal tube was compared to the chloropicrin activity of the charcoal, to obtain the shrinkage, and is based on extensive work by the C.N.G.A. Charcoal Test committee. The vapor equivalents for 30-lb. gauge 33 degrees Fahr., and rectified condensage volumes have been experimentally determined in different fields for a variety of lean and rich gases.

To the above gases have been added the respective venting losses incidental to distillation to obtain the total shrinkage value, and the latter value compared to various ratios of rectified condensage volumes to 30 condensate volumes.

Extra copies of the new shrinkage table, together with revised pages 13, 39, 40, and 47, for insertion into Bulletin TS-351, may be obtained for no charge from George Tyler, C.N.G.A. secretary, Associated Realty Building, Los Angeles, California.

To Survey Industrial Research

A nation-wide survey of research in industry is to be started at once under the direction of Raymond Stevens, vice president of Arthur D. Little, Inc. A special committee met recently to formulate initial plans. Funds have been made available by the National Resources Planning Board but the survey is a project of the National Research Council in accordance with plans approved by an advisory committee of leading scientists, industrial research directors, and executives.

The Council was established in 1916 at the request of President Woodrow Wilson to work on war problems and has continued with peace-time objectives since 1918.

Shrinkage in Gas Volume

CUBIC FT.

MILLILITERS OF CONDENSATE AT 30 lb. gage - 32°F.	RANGE	MILLILITERS OF RECTIFIED CONDENSATE AT 100°F.																											MILLILITERS OF CONDENSATE AT 30 lb. gage - 33°F.
		0.0	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0	52.5	55.0	57.5	60.0	62.5	65.0	
		0.0 TO 1.2	1.3 TO 3.7	3.8 TO 6.2	6.3 TO 8.7	8.8 TO 11.2	11.3 TO 13.7	13.8 TO 16.2	16.3 TO 18.7	18.8 TO 21.2	21.3 TO 23.7	23.8 TO 26.2	26.3 TO 28.7	28.8 TO 31.2	31.3 TO 33.7	33.8 TO 36.2	36.3 TO 38.7	38.8 TO 41.2	41.3 TO 43.7	43.8 TO 46.2	46.3 TO 48.7	48.8 TO 51.2	51.3 TO 53.7	53.8 TO 56.2	56.3 TO 58.7	58.8 TO 61.2	61.3 TO 63.7	63.8 TO 66.2	
15.0	14.5-15.4	.21	.19	.18	.16	.15	.13	.11																					15.0
16.0	15.5-16.4	.22	.20	.19	.17	.16	.14	.12																					16.0
17.0	16.5-17.4	.23	.21	.20	.18	.17	.15	.13	.12																				17.0
18.0	17.5-18.4	.23	.22	.21	.19	.18	.17	.15	.13																				18.0
19.0	18.5-19.4	.24	.23	.21	.20	.19	.18	.16	.15	.13																			19.0
20.0	19.5-20.4	.25	.24	.22	.21	.20	.19	.17	.16	.14																			20.0
21.0	20.5-21.4	.26	.25	.23	.22	.21	.20	.19	.17	.16																			21.0
22.0	21.5-22.4	.27	.26	.24	.23	.22	.21	.20	.18	.17	.15																		22.0
23.0	22.5-23.4	.28	.26	.25	.24	.23	.22	.21	.20	.18	.17																		23.0
24.0	23.5-24.4	.28	.27	.26	.25	.24	.23	.22	.21	.20	.18	.17																	24.0
25.0	24.5-25.4	.29	.28	.27	.26	.25	.24	.23	.22	.21	.20	.18																	25.0
26.0	25.5-26.4	.30	.29	.28	.27	.26	.25	.24	.23	.22	.21	.19	.18																26.0
27.0	26.5-27.4	.31	.30	.29	.28	.27	.26	.25	.24	.23	.22	.21	.19																27.0
28.0	27.5-28.4	.32	.31	.30	.29	.28	.27	.26	.25	.24	.23	.22	.20	.19															28.0
29.0	28.5-29.4	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24	.23	.22	.20															29.0
30.0	29.5-30.4	.34	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24	.23	.21															30.0
31.0	30.5-31.4	.35	.34	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24	.23	.21														31.0
32.0	31.5-32.4	.35	.34	.34	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24	.23														32.0
33.0	32.5-33.4	.36	.35	.35	.34	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24	.22													33.0
34.0	33.5-34.4	.37	.36	.35	.35	.34	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24													34.0
35.0	34.5-35.4	.38	.37	.36	.36	.35	.34	.33	.32	.31	.30	.29	.29	.28	.27	.25	.23												35.0
36.0	35.5-36.4	.39	.38	.37	.36	.36	.35	.34	.33	.32	.31	.30	.30	.29	.28	.26	.25												36.0
37.0	36.5-37.4	.40	.39	.38	.37	.37	.36	.35	.34	.33	.32	.31	.31	.30	.29	.28	.26												37.0
38.0	37.5-38.4	.41	.40	.39	.38	.37	.37	.36	.35	.34	.33	.32	.32	.31	.30	.29	.27	.26											38.0
39.0	38.5-39.4	.42	.41	.40	.39	.38	.38	.37	.36	.35	.34	.33	.33	.32	.31	.30	.29	.28											39.0
40.0	39.5-40.4	.42	.42	.41	.40	.39	.39	.38	.37	.36	.35	.34	.34	.33	.32	.31	.30	.29	.28										40.0
41.0	40.5-41.4	.43	.42	.42	.41	.40	.39	.39	.38	.37	.36	.35	.35	.34	.33	.32	.31	.30	.29										41.0
42.0	41.5-42.4	.44	.43	.43	.42	.41	.40	.40	.39	.38	.37	.36	.36	.35	.34	.33	.32	.31	.30										42.0
43.0	42.5-43.4	.45	.44	.44	.43	.42	.41	.41	.40	.39	.38	.37	.37	.36	.35	.34	.33	.32	.31	.29									43.0
44.0	43.5-44.4	.45	.45	.44	.44	.43	.42	.42	.41	.40	.39	.38	.38	.37	.36	.35	.34	.33	.32	.31									44.0
45.0	44.5-45.4	.47	.46	.45	.45	.44	.43	.42	.42	.41	.40	.39	.39	.38	.37	.36	.35	.34	.33	.32	.31								45.0
46.0	45.5-46.4	.48	.47	.46	.45	.45	.44	.43	.43	.42	.41	.40	.40	.39	.38	.37	.36	.35	.34	.33	.32								46.0
47.0	46.5-47.4	.48	.48	.47	.46	.46	.45	.44	.44	.43	.42	.41	.41	.40	.39	.38	.37	.36	.35	.34	.33								47.0
48.0	47.5-48.4	.49	.49	.48	.47	.47	.46	.45	.45	.44	.43	.42	.42	.41	.40	.39	.38	.37	.36	.35	.34	.33							48.0
49.0	48.5-49.4	.50	.50	.49	.48	.47	.47	.46	.45	.45	.44	.43	.43	.42	.41	.40	.39	.39	.38	.37	.36	.35							49.0
50.0	49.5-50.4	.51	.50	.50	.49	.48	.48	.47	.46	.46	.45	.44	.44	.43	.42	.41	.40	.40	.39	.38	.37	.36	.34						50.0
51.0	50.5-51.4	.52	.51	.51	.50	.49	.49	.48	.47	.46	.46	.45	.45	.44	.43	.42	.42	.41	.40	.39	.38	.37	.36						51.0
52.0	51.5-52.4	.53	.52	.51	.51	.50	.49	.49	.48	.47	.47	.46	.46	.45	.44	.43	.43	.42	.41	.40	.39	.38	.37	.36					52.0
53.0	52.5-53.4	.54	.53	.52	.51	.51	.50	.50	.49	.48	.48	.47	.47	.46	.45	.44	.44	.43	.42	.41	.40	.39	.38	.37					53.0
54.0	53.5-54.4	.54	.54	.53	.52	.52	.51	.51	.50	.49	.49	.48	.48	.47	.46	.45	.45	.44	.43	.42	.41	.40	.39	.38					54.0
55.0	54.5-55.4	.55	.55	.54	.53	.53	.52	.51	.51	.50	.50	.49	.48	.48	.47	.46	.46	.45	.44	.43	.42	.41	.40	.39	.38				55.0
56.0	55.5-56.4	.56	.56	.55	.54	.54	.53	.52	.52	.51	.51	.50	.49	.49	.48	.47	.47	.46	.45	.44	.43	.42	.41	.40	.39				56.0
57.0	56.5-57.4	.57	.56	.56	.55	.55	.54	.53	.53	.52	.51	.51	.50	.50	.49	.48	.48	.47	.46	.45	.44	.43	.42	.41	.40	.39			57.0
58.0	57.5-58.4	.58	.57	.57	.56	.55	.55	.54	.54	.53	.52	.52	.51	.51	.50	.49	.49	.48	.47	.46	.45	.44	.43	.42	.41	.40	.39		58.0
59.0	58.5-59.4	.59	.58	.58	.57	.56	.56	.55	.55	.54	.53	.53	.52	.52	.51	.50	.50	.49	.49	.47	.46	.45	.44	.43	.42	.41	.40		59.0
60.0	59.5-60.4	.60	.59	.58	.58	.57	.57	.56	.55	.55	.54	.54	.53	.52	.52	.51	.51	.50	.49	.48	.47	.46	.45	.44	.43	.42	.42		60.0
61.0	60.5-61.4	.61	.60	.59	.59	.58	.58	.57	.56	.56	.55	.55	.54	.53	.53	.52	.51	.51	.50	.50	.49	.48	.46	.46	.45	.44	.43		61.0
62.0	61.5-62.4	.61	.61	.60	.60	.59	.58	.58	.57	.57	.56	.55	.55	.54	.54	.53	.52	.52	.51	.50	.49	.48	.47	.46	.45	.44	.43	.42	62.0
63.0	62.5-63.4	.62	.62	.61	.61	.60	.59	.59	.58	.58	.57	.56	.56	.55	.55	.54	.54	.53	.52	.51	.50	.49	.48	.47	.46	.45	.44	.43	63.0
64.0	63.5-64.4	.63	.63	.62	.61	.61	.60	.60	.59	.59	.58	.57	.57	.56	.56	.55	.55	.54	.53	.52	.51	.50	.49	.48	.47	.46	.45	.44	64.0

New Patents

Compiled by R. E. Burnham, patent and trade-mark attorney. 511 Eleventh Street, NW, Washington, D. C., from whom copies may be obtained at rate of 25c each. State number of patent and name of inventor when ordering.

November 21, 1939

Process of making gasoline—B. H. Shoemaker, Hammond, Ind., assignor to Standard Oil Co. (Ind.) Filed Dec. 11, 1936. No. 2,180,372.

Production of liquid saturated hydrocarbons—E. E. Stahly and E. M. Hattox, Baton Rouge, assignors to Standard Oil Development Co. Filed Nov. 19, 1938. No. 2,180,374.

Process and apparatus for fractionating—M. R. Fenske, State College, Pa., assignor to Pennsylvania Research Corp. Filed Aug. 7, 1937. No. 2,180,512.

Adsorbent clay and method and means for producing—W. S. Baylis and William Kelley, Los Angeles, assignors to Fullerite Inc. Filed May 8, 1937. No. 2,180,576.

Process for converting gaseous hydrocarbons—F. E. Frey, Bartlesville, Okla., assignor to Phillips Petroleum Co. Filed May 16, 1936. No. 2,180,672.

Process for fractionating hydrocarbon oils—G. W. Nederbragt, Amsterdam, Netherlands, assignor to Shell Development Co. Filed Sept. 27, 1938. No. 2,180,763.

Method of treating hydrocarbon distillates—V. W. Wilson, Buffalo, N. Y., assignor to Buffalo Electro-Chemical Co. Filed Feb. 1, 1937. No. 2,181,036.

Odorizer for natural gas—W. A. Green, Jonesboro, Ark., and Edward Rolle, New York, assignors to Standard Oil Co. (Cal.) Filed May 24, 1938. No. 2,180,584.

Lubricating oil compositions—A. C. Vobach, Whiting, Ind., assignor to Sinclair Refining Co. Filed May 17, July 27, and July 27, 1937. Nos. 2,180,697, 2,180,698, and 2,180,699.

Manufacture of anthracene—W. J. Mattox and A. V. Grosse, Chicago, assignors to Universal Oil Products Co. Filed May 31, 1938. No. 2,180,814.

* * *

November 28, 1939

Reaction vessel—T. B. Prickett, Woodbury, N. J., assignor to Houdry Process Corp. Filed Mar. 15, 1937. No. 2,181,153.

Conversion of hydrocarbons—P. C. Keith, Jr., Peapack, N. J., G. W. Robinson, Houston, and George Roberts, Jr., Montclair, N. J., assignors to Polymerization Process Corp. Filed Apr. 29, 1937. No. 2,181,302.

Process of recovering casing-head gasoline—A. J. Lindsay, Palo Alto, Calif., assignor to Fluor Corp. Filed Nov. 2, 1936. No. 2,181,633.

Dewaxing of mineral oils—L. W. Cook, Beacon, N. Y., assignor to Texas Co. Filed June 25, 1938. No. 2,181,638.

Process and products relating to production of valuable hydrocarbons—R. M. Deanesly and Aaron Wachter, Berkeley, Calif., assignors to Shell Development Co. Filed Aug. 26, 1935. No. 2,181,640.

Polymerization of tertiary-base olefins—W. A. McMillan, Beacon, N. Y., assignor to Texas Co. Filed July 14, 1937. No. 2,181,642.

Conversion of hydrocarbon gases into liquid hydrocarbons—C. R. Wagner, Chicago, Ill., assignor to Pure Oil Co. Filed June 17, 1936. No. 2,181,749.

Motor fuel—E. M. Marks, Lansdowne, Pa., assignor to Atlantic Refining Co. Filed Nov. 12, 1936. No. 2,181,143.

High molecular weight halogenated organic compounds and method of preparing same—A. J. Morway, Roselle, and F. L. Miller, Roselle Park, N. J., assignors to Standard Oil Development Co. Filed Oct. 20, 1937. No. 2,181,144.

Oxidized chlorinated olefin polymer—W. J. Sparks, Cranford, and C. W. Muessig, Elizabeth, N. J., assignors to Standard Oil Development Co. Filed Nov. 30, 1938. No. 2,181,158.

Dispersing agent and method of making—A. E. Catanach and Eric Kolthoff, Port Arthur, Tex., assignors to Gulf Oil Corp. Filed Sept. 27, 1938. No. 2,181,499.

Cellulose compound compositions—R. P. Russell, Short Hills, N. J., assignor to Standard Oil Development Co. Filed May 15, 1937. No. 2,181,609.

Treatment of oil, water, and gas emulsions; emulsion treating apparatus; treatment of oil, gas, and water emulsions; apparatus for treating oil emulsions; oil, gas, and water separator, and treatment of oil, gas, and water emulsions—(6 patents) Two filed Mar. 29, 1935; one Sept. 14, 1936; two Dec. 17, 1937, and one Sept. 12, 1936. J. P. Walker, Tulsa, Okla. No. 2,181,683 to 2,181,688, inclusive.

Production of alkylated phenols—D. R. Stephens, Swissvale, and J. E. Nickels, Pittsburgh, assignors to Gulf Refining & Development Co. Filed Apr. 11, 1938. No. 2,181,823.

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Evaluates Lube Additive In Million-Mile Test

The value of addition agents in lubricating oils was shown recently by Dr. Robert D. Best, Continental Oil Co., Ponca City, Okla., who described a test conducted by a large bus system in which eight buses participated over a distance of 150,000 miles per bus. Four of the buses were run on a good grade of mineral oil without additive agents. The other four were run on a mineral oil of very nearly identical characteristics but included a small quantity of methyl dichlor stearate.

Designating the wear obtained with the untreated oil as 100%, the average wear in the four buses using the addition agent is shown below for some of the more important engine parts:

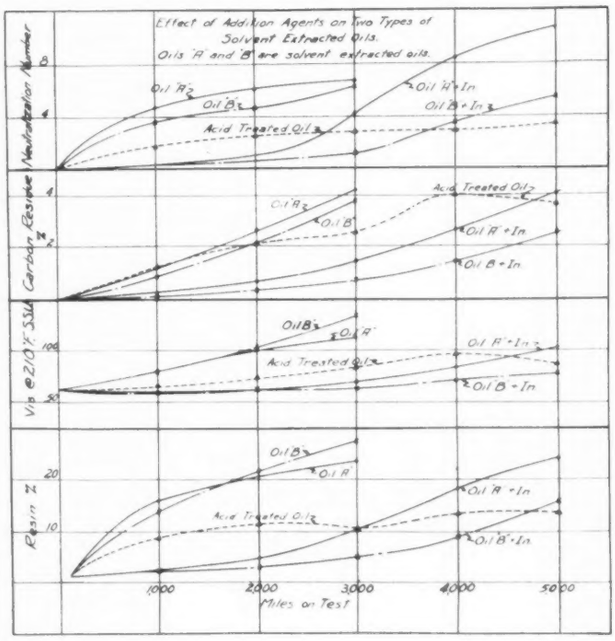
Crank pins	76%
Main journals	73%
Piston pin bushing	106%
Piston pin gap	93%
Cylinders at top	68%

Dr. Best said the use of additive agents is to some extent bound up with the choice of the lubricant base used. It now seems clear that in the effort to reduce engine sludge and lacquer conditions, more drastic refining methods will become general. The resulting product, however, generally has lower oiliness and load-carrying ability and has much less stability with respect to oxidation and corrosion than the lubricants produced by older methods. For this reason addition agents to increase load-carrying ability are now more than ever required, and in all probability more powerful ones will soon be necessary.

With respect to oxidation and corrosion occurring with the new refining methods, other additive agents must again be called upon to cope with this situation, he said. As an example of the deficiencies of lubricants before addition of these agents, together with the degree to which they may be overcome, a few of the results of engine tests are shown in the accompanying chart.

The curves for the solvent oils without inhibitor extend only to 3000 miles since bearing corrosion had developed to such an extent that it was necessary to stop the test. The other oils were able to go the 5000 miles and it should be observed that the engine condition with reference to high temperature sludge, lacquer, carbon deposits, and other properties is in every case better with the solvent treated oils.

It will be noted that the solvent extracted oils are not nearly as good as the acid-treated oil. However, they become satisfactory and are usually superior to the acid-treated product when a suitable addition compound is included.



The degree to which deficiencies of certain highly refined lubricating oil may be overcome by use of suitable additives

Lubricant Additive Dispute Is Brought into Court

The Lubri-Zol Development Corp. is defendant in a suit filed recently by Bakelite Corp., Delta Oil Products Co. and Filmite Oil Corp. in the U. S. District Court at Wilmington, Del. Bakelite and its associates in the suit seek to invalidate six Lubri-Zol patents covering lubricating oil additives. An injunction is sought to prevent further action by Lubri-Zol to impose licenses on the three companies.

First step in the controversy was taken by Lubri-Zol by notifying Delta and Filmite that they were infringing Lubri-Zol patents by selling lubricants containing haloginated organic compounds. Bakelite was notified that it was contributing to the infringement by selling compounds to Delta without a license.

The plaintiffs deny that any of the six Lubri-Zol patents are valid. These are patent numbers 1,986,645, 1,986,651, 2,051,744, 2,074,338, 2,137,782, and 2,150,079. They point out in their complaint that the patent applicants "were not the original and first inventors of the alleged improvements" and that they had been in public use for more than two years prior to Lubri-Zol applications. A number of patents as far back as 1880 were cited along with eight published articles from 1927 to 1932 to support their contentions, as well as the names of 30 individuals and firms as instances of prior invention, prior knowledge, and use by others.

Patents and printed publications cited by the plaintiffs as antedating the Lubri-Zol patents include:

U. S. Patents

Patentee	Number	Patented
Draper	228,181	June 1, 1880
Sommer	419,726	Jan. 21, 1890
Sommer	461,513	Oct. 20, 1891
Whitney	919,506	Apr. 27, 1909
Aylsworth	1,028,926	June 11, 1912
Aylsworth	1,029,254	June 11, 1912
Aylsworth	1,154,161	Sept. 21, 1915
Wells & Southcomb	1,319,129	Oct. 21, 1919
Oldacre	1,604,068	Oct. 19, 1926
Midgley	1,668,022	May 1, 1928
Hennen	1,682,561	Aug. 28, 1928
Orelup et al	1,692,784	Nov. 20, 1928
Thrig	1,768,910	July 1, 1930
Barnard	1,796,857	Mar. 17, 1931
Davis	1,815,022	July 14, 1931
Dow	1,867,968	July 19, 1932
Burton	1,857,235	May 10, 1932
Thomas et al	1,896,759	Feb. 7, 1933
Dow	1,918,593	July 18, 1933
Vallee	1,926,961	Sept. 12, 1933

Foreign Patents

Stern (German)	302,986	Jan. 8, 1918

Printed Publications

NATIONAL PETROLEUM NEWS—issue of Sept. 14, 1927—p. 64—article entitled "Lubricating Automobile Valve Stems."

Paper by C. Wooler entitled "Observations on the Testing of Lubricants" read on or about Nov. 17, 1930 before the Cleveland Section of the Society of Automotive Engineers.

Paper by Mougey and Allmen entitled "Sulphur in Extreme-Pressure Lubricants" read on or about November 10, 1931, before the American Petroleum Institute.

Paper by O. L. Maag in the NATIONAL PETROLEUM NEWS of November 16, 1932, entitled "Extreme Pressure Lubricants."

Paper by Wolf and Mougey entitled "Extreme-Pressure Lubricants" read on or about November 17, 1932, before the American Petroleum Institute.

A preliminary report of lubrication research by S. A. McKee and T. R. McKee of the Bureau of Standards referred to in an amendment filed on or about September 27, 1932, in the patent application of Carl F. Prutton, Ser. No. 463,366, which application was filed on or about June 23, 1930.

Paper by E. G. Boden and O. L. Maag entitled "Lubricant Testing" read on or about May 22, 1931, at the Fifth Oil Power Conference, State College, Pa.

Paper by O. L. Maag entitled "Lubricants for Anti-Friction Bearings" read before the Chicago and Pittsburgh District sections of the Association of Iron and Steel Electrical Engineers, Chicago, March, 1932; Pittsburgh, April, 1932.

To Offer Better 'Gas' From 'Octane' Stock Built For Aviation

A patrol squadron of the U. S. Navy. These planes are patrol bombers of the largest type the Navy uses. Their two 850-Hp. engines provide a cruising speed of 175 miles per hour. They have gone 3200 miles non-stop. Official photograph, U. S. Navy

THE oil refining industry is creating a large new supply of high octane gasoline blending stock which will be available in 1940. This new supply can be considered as a reservoir from which "octanes" can be withdrawn so to speak, for the production of either greatly increased supplies of aviation gasoline, or for the production of higher anti-knock automobile fuel.

Although aviation 'fuel' demand is growing rapidly from year to year, it now seems probable that the high octane blending stock will be more than enough to meet probable demands. As a result the stock will have a marked effect in raising the average knock rating of automobile fuels sold to the public.

New refining processes involved in this change have been under development for the past 20 years. They are not a development of the present European war, but the threatening war clouds which have hung over Europe for several years have brought them to a head. Investment by refiners in large scale plants for alkylation and other catalytic processes obviously has been stimulated by considerations of national defense and probable export demand. Usually new processes are adopted more or less slowly, as older installations wear out. In the present instance the new plants are being built at an accelerated pace.

Before the war broke out between the Allies and Germany it had been thought generally that this would be an aerial war. Feverish preparations were made to minimize the effect of indiscriminate bombing by vast fleets of fast planes. It was assumed that the European nations would follow the pattern of the war in China, Ethiopia and Spain by seeking to terrorize the civilian population.

Thus far there has been no aerial *blitzkrieg*, although German leaders still talk about the offensive which is to come. Aerial warfare has been limited largely to scouting troop movements behind the lines, bombing of a few military objectives and attempts to break the naval blockade by mine laying and bombing.

So the expected extraordinarily large consumption of aviation gasoline has not materialized. As a matter of fact exports of aviation gasoline to Europe have been less since war was declared than during the first half of the year. This is due largely to the delay in organizing the convoy system, however. It may be anticipated that overseas movement of aviation gasoline will increase as the war continues whether indiscriminate bombing is resorted to or not.

After only four months of war it is far too soon to climb out on a limb and guess how much aviation gasoline will be purchased in this country by the Allied governments. It is not too early to see clearly, however, that domestic motor gasolines are to be radically different in anti-knock quality in the next few years. The "octane" reservoir being created by polymerization, alkylation, hydrogenation, and catalytic

The nature of some of the higher octane motor fuels now being marketed in this country, as a result of the new refining processes for making aviation fuels, will be discussed in a following article in NATIONAL PETROLEUM NEWS.

An article telling of the point of view of some of the Mid-Continent refiners toward these new motor fuels, was published in the Jan. 3rd issue, page 5.

Commercial airlines using planes like this one of American Airlines, Inc., are continually increasing their consumption of high-octane aviation gasoline. Most air liners will use 90-octane fuel in 1940

cracking will tend to change automobile fuels and they, in turn, will change the motors which Detroit builds for our cars.

Shipments of aviation gasoline by U. S. refineries in 1939 totaled about 275,000,000 gallons. Of this about 165,000,000 gallons was exported and 110,000,000 gallons consumed by this government and by private and commercial aviation.

By way of comparison it is estimated that in 1940 U. S. refineries can produce 750,000,000 gallons of aviation gasoline. By the close of the year it may be possible for U. S. refineries to produce aviation gasoline at the rate of a billion gallons a year.

The government is launching a big airplane building program which may double its gasoline requirement within the next year and a half. But the government only consumed about 50,000,000 gallons of aviation gasoline in 1939. Ninety per cent of this was 100 octane rating. Even if commercial and private airplane consumption also were to be doubled, U. S. refineries would still be able to produce blending stock from which more than a half billion gallons of additional aviation fuel could be made. This excess would cover all of the 1939 aviation fuel exports and still provide almost as much again for additional exports or for additional domestic demand.

The moral embargo on exports of military planes to Japan may have an effect on movement of American aviation gasoline in the Pacific this next year. In the first half of 1939 Japan took 14,000,000 gallons of aviation gasoline from the U. S.

Whatever the export situation may be in 1940 it now seems likely that there will be more than enough high octane blending stock to supply aviation needs and that this stock will find its way into the 23,000,000,000-gallon domestic automobile fuel market to give American motorists a better gasoline than ever before.

In general there are three types of plants which now are producing aviation fuel. They are:

1. Houdry catalytic cracking. On the basis of only 22 per cent yield of aviation gasoline by the 12 Houdry catalytic cracking plants in this country, ten of which were built this year, these plants alone could produce over 500,000,000 gallons of 90-octane fuel, without including any higher octane blending materials, such as iso-octane.

2. Selective polymerization-hydrogenation. Some ten refineries were meeting 100-octane fuel requirements at the end of 1938 by the manufacture of iso-octane. This fuel is produced by combining certain fractions of refinery gases into the liquid product iso-octane. Iso-octane is not usable as such for airplane fuel, principally because its boiling point is too high, but by blending it with a good quality aviation gasoline and adding reasonable amounts of lead, a super-aviation fuel can be produced.

Combined yield of these ten plants is somewhere around 20,000 barrels of finished aviation fuel daily. This is equivalent to over 250,000,000 gallons annually.

Besides these ten refineries, there are other polymerization plants operating in this country, the product of which is used entirely for making motor fuel blending stocks.

3. Alkylation. Close to 150,000,000 gallons of aviation fuel and iso-octane will be produced next year by the entirely new refining process known as alkylation. Five of these plants producing 3425 barrels daily were completed and operating by last month and six were in various stages of construction. Their total capacity is 11,500 barrels per day.

U. S. Military Demand

The step-up in the annual demand for 100-octane aviation fuel consumed in the U. S., largely by military air services, is indicated by U. S. Army Air Corps contracts for the fiscal year ending June 30, 1940. This demand totals 27,500,000 gallons, as compared with 20 to 25 million gallons for the preceding year and makes up nearly 90 per cent of all aviation fuel purchased by the Air Corps. While the Navy's program is not so well known, indications are that it is also converting planes to use 100-octane fuel wherever practicable. The naval air force will be a little smaller than the Army Air Corps by next July 1 but on a proportional basis, the Army-Navy aviation fuel requirements together should be close to 50,000,000 gallons this year.

That the quantity of aviation fuel required by the U. S. military services will continue to increase even more rapidly is shown by the fact the federal government is spending nearly $1,000,000,000 during the fiscal year ending next June 30 for development and expansion of military aviation. Out of Army and Navy appropriations the Army will increase its equipment from 1800 tactical planes of all types as of July 1, 1939, to at least 5500 by July 1, 1941, two years later.

The present Navy total of 1500 operating planes will be doubled and possibly increased even further if a proposed Naval Defense Bill is passed by

Boss of quality

Sometimes the refiner is in the middle

He can't always set the price he pays for crude nor get the price he wants for products

But he can always control their quality and that's lucky, for quality counts in any market

He can always get the biggest yield of the best kind of gasoline and other wanted products from every barrel of crude he runs

Dubbscracking is the way to do that

And U. O. P. catalytic poly goes a step farther It makes still more gasoline of still higher quality from the cracked gas

And all at lowest cost, royalty and all

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor

Congress during its next session. By present appropriations the Army Air Corps has received $170,000,000 to be spent on airplanes and engines out of a total appropriation of $635,000,000. The Navy's total appropriation in 1939 was $201,000,000. The plan of last January, as the President recommended to Congress, was for an Army air force of 6000 planes and a Naval air force of 3000 planes to be secured in two years.

The Army has proceeded rapidly with its program of expansion since April 26, 1939, when the President signed the first bill giving the Army $50,000,000 for airplanes. This was all spent for 571 planes by July 1, when an additional $120,000,000 became available for airplanes and equipment. The Navy has also let several contracts, it is reported, but is working through the House Naval Affairs committee on a Naval Defense Bill which would raise naval aircraft authorizations from not less than 3000 to 6000 planes. The bill is to be introduced in the House when Congress reconvenes and hearings for the supplemental Navy Defense bill are set for Jan. 8.

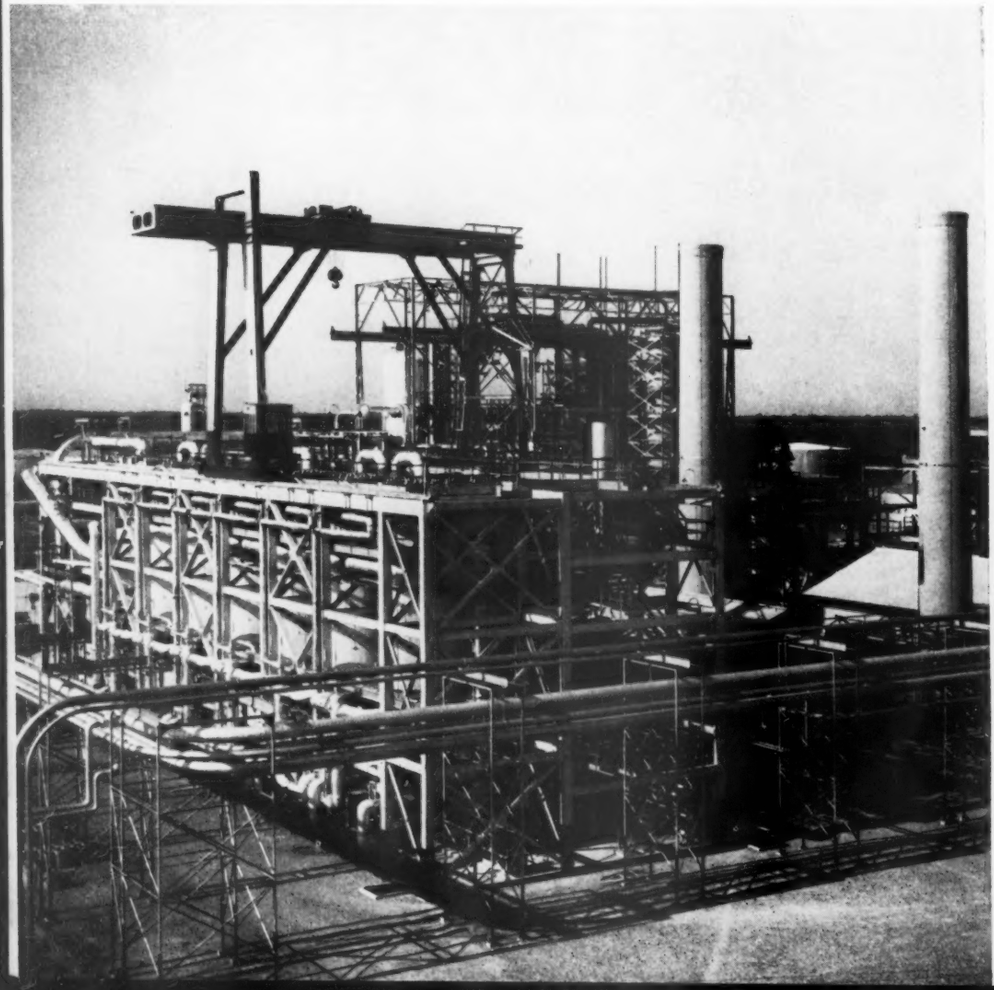
The growth of consumption of aviation fuel by the U. S. Army Air Corps and particularly the growth of 100-octane fuel consumption is shown by Table 1. In the present fiscal year 100-octane fuel contracts are nearly double the consumption during the calendar year of 1938 and more than four times that of 1937. In 1938 the 100-octane gasoline became the principal aviation fuel of the Army Air Corps and its consumption exceeded that of all aviation fuel in 1934. From 1933 through 1937 the principal fuel was 92 octane and before that 87 octane. Military airplanes used 60-octane fuel in 1928.

The bulk of Army-Navy contracts, out of present appropriations granted by Congress have been let and are the largest that have been awarded since the last European war. Practically all engines will be designed to use 100-octane fuel, although they will operate on lower octane fuels. The highest powered engines and latest advances in aviation will be incorporated in the new military planes.

In addition to U. S. Army and Navy contracts, American aircraft manufacturers had a backlog of almost $200,000,000 worth of orders from the Allies in November. A "conservative estimate" in *Aviation* magazine for December places the total unfilled orders for aircraft at $550,000,000, of which half is believed to be for export. In spite of this volume of business, aircraft manufacturers are expanding rapidly and expect to fill our military contracts within the allotted time.

Present rate of production of airplanes in this country (July 1, 1939 to July 1, 1940) has been estimated at 4650 per year as compared with 1950 airplanes during 1938, and 1060 annually for the five years 1933-37. This estimate was made before the European war started. Foreign airplane orders no doubt have increased the production rate considerably.

This plant of Magnolia Petroleum Co., at Beaumont, Texas, is run to produce both aviation fuel base stock and motor fuel, along with a light grade of heating oil. Its capacity is 15,000 barrels daily of crude oil, from which the tar has been removed



Air Line Transport Fuel Consumption

Commercial air lines have only 255 airplanes in service on scheduled passenger, express, and mail service within the U. S., and 91 in service between the U. S., and foreign countries, but their fuel consumption during the past year is estimated at 50,000,000 gallons of aviation fuel, which is as much as Army-Navy annual consumption. Commercial air lines now use 80-, 87-, and 90-octane fuels but the trend is toward an increase in their use of 90-octane fuel, according to R. C. Oertel and R. E. Ellis, aviation managers for Standard of New Jersey and Standard Oil Development Co. respectively, in a recent article in *National Aeronautics* magazine. Commercial overland air lines have avoided fuels of over 90 octane number because lower specific fuel consumption has not been considered essential and the higher cost not justified. These authorities state that "it is quite probable that at least some operators now purchasing equipment for 1941 will build operations around use of 95-octane fuel." By that time it is expected that price differentials for the higher octane fuels will be reduced.

The growth of scheduled air line operations in this country the past year is shown by the fact that total passenger miles on all air lines for the first ten months of 1939 were 38.9 per cent ahead of 1938. Individual transport company gains in passenger miles by months varied all the way from 30 to 90 per cent. American Airlines logged 21,100,000 passenger miles in September, setting a world's record for commercial air lines. This was 37.2 per cent over September, 1938.

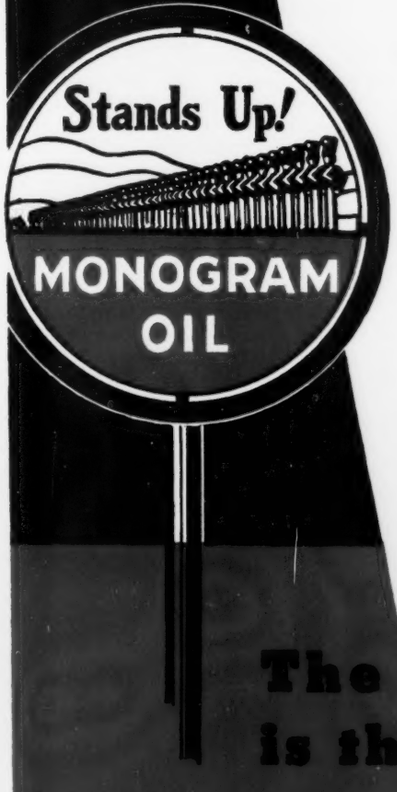
One of the factors which will have considerable influence in boosting air line passenger service is that passenger fatality in 1938 was half that of 1937. The figure was 11,915,000 passenger miles flown per fatality in 1937 and 22,445,000 miles per fatality in 1938. This compares with 8,300,000 automotive vehicle miles per fatality in 1938 or, assuming two passengers per car mile, 16,600,000 automobile passenger miles per fatality. And 1938 was 18 per cent better than 1937 in automobile fatalities.

Exports of Aviation Fuel

Exports of aviation fuel have been reported separately by the Department of Commerce since January, 1939. The first six months of 1939 foreign shipments amounted to 2,493,000 barrels or nearly 105,000,000 gallons.

Exports for the first 10 months totalled 3,365,500 barrels or 141,000,000 gallons. In the first six months aviation gasoline constituted 11.4 per cent of all gasoline exported but for ten

MONOGRAM OIL



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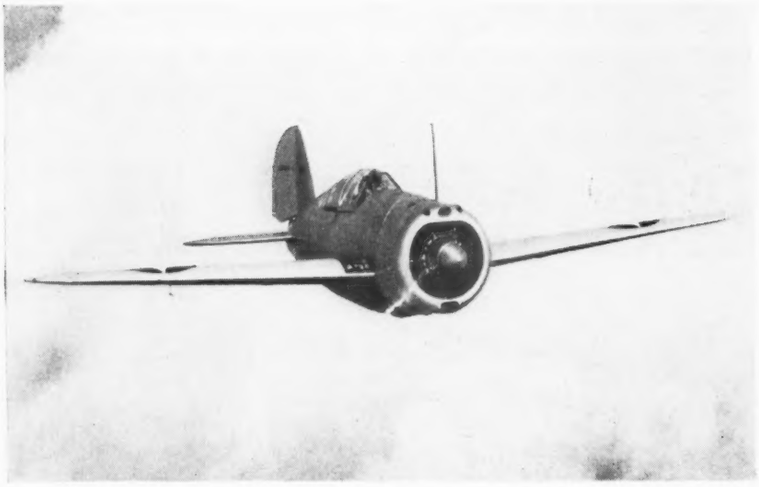


This was the latest navy fighting plane in 1938 used in aircraft carrier operations. It has a speed of 250 miles per hour and range of 800 miles
Official photograph, U. S. Navy

months the percentage dropped to 8.7. Average shipments during the first six months were over 400,000 barrels per month as compared with only 220,000 barrels for the following four months.

October exports, the latest reported by the Bureau of Mines, were less than expected, being 24 per cent less than a year ago and the ten-month total is five per cent below 1938. However, "the first successful step in the big-time movement of U. S. petroleum to England and France during the current European war" was reported early in December, and it appears to be a matter of convoy organization that has held up exports since September. More intense military operations in the European wars will also increase the demand on U. S. refiners for aviation gasoline.

Aviation Fuel for Private Flying

Aviation fuel consumption by private airplanes in 1939 has been estimated at 10 to 12 million gallons, based upon an annual consumption of 800 gallons per plane per year. Only about 10 per cent of this fuel is as high as 87-octane. This would be about 1,000,000 gallons. Around 60 per cent is 80-octane fuel, according to data accumulated by the aviation fuel sales department of one of the large oil companies, and the remaining 30 per cent is 74-octane fuel. Thus most of this fuel has been about equivalent in octane number to premium grade motor fuel. In 1939 there was a 50 per cent increase in the use of 80-octane fuel from 74-octane, by private airplanes. Private flying has, therefore, not been an important factor in the demand for super aviation fuel.

Why Use 100-Octane?

Airplanes equipped to use high-octane fuel have important advantages over those using lower anti-knock fuel. In the jump from 60 to 87-octane fuel, airplane engines designed to utilize the latter quality fuel give 33 per cent greater power output than engines using 60-octane fuel. Engines built to use 100-octane gasoline yield 15 to 30 per cent greater power than engines using 87-octane fuel. This means 20 per cent reduction in take-off distance and 40 per cent increase in climbing speed.

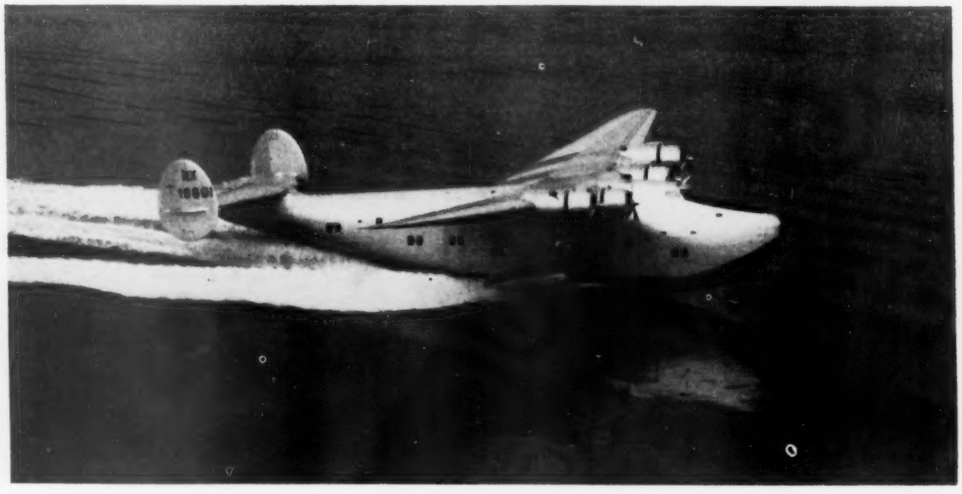
In a 1400-mile flight of a transport plane the advantage of 100-octane fuel over 87-octane fuel has been calculated to be equivalent to dispensing with 1200 pounds of gasoline and carrying instead seven more passengers, or their equivalent weight in mail or freight. The use of 100-octane fuel in aviation engines designed for this fuel is said to bring fuel efficiency on a par with the best aviation diesel engine.

Prices

The country-wide average cost of 100-octane aviation fuel at the refinery during the past year has been 15.5 cents per gallon, reports the aviation department of one large oil company. This is 4.75 cents more than 95-octane fuel and about three times the refinery price of regular motor fuel. The difference between 95-octane and 87-octane fuels has been only 2 cents during the past year, the average refinery prices ranging from 10.75 cents for 95-octane, to 9.75 cents for 92-octane, 9.25 cents for 90-octane, and 8.75 for 87-octane. Air transports will make 90-octane as much of a standard in 1940 as 87-octane was in 1939. The price differential between these grades was 0.5 cent in 1939.

The capacity of refineries in this country to produce 100-octane aviation gasoline is several times larger than a year ago, due to new plant construction. Large as this increase has been, however, the total capacity of all these plants today, on all processes, is but a drop in the bucket compared with the potential production of high octane aviation gasoline which is possible from the raw materials available in this country. On this point, Dr. Gustav Egloff of Chicago, of the Universal Oil Products Co. research laboratories, had the following to say at the last annual meeting of the American Petroleum Institute in Chicago:

"The volumes of 100-octane gasoline potentially available yearly in the United States are greater than the volume of all gasolines now being produced. One prolific source which has been tapped recently is natural and refinery gases. From these gases alone, 8,345,000,000 gallons of 81-octane, or



The world's largest airliner with the world's highest power engines. Built to carry 74 passengers this plane has a wing span of 150 feet, length of 109 feet, and weighs 82,500 pounds. Courtesy Aero Digest

Here's EXTRA PULLING POWER that Cuts Hauling Time!

—AND GMC OWNERS REPORT 15% to 40% Savings on Gasoline

It's a fact—any GMC can outpull any other truck, size for size. GMC owners find they can cover their routes quicker, hauling more gallonage every day. And, at the same time, their fuel costs are record-low! Before you buy another truck, see us and see how the GMC SUPER-DUTY Engine, with its revolutionary POWER-PAK Pistons, gets more power out of every drop of fuel.

COMPARE PERFORMANCE—CONSTRUCTION—PRICE —SEE WHY SO MANY OIL HAULERS PREFER GMC—Look for the features that are most important. You'll find more of what *you* want in a GMC. Here's a truck that's really got *spirit* . . plus stamina and brute strength.

Our own YMAC Time Payment Plan assures you of lowest available rates

GMC RIDER-EASE CABS are all-steel for safety, insulated and well-ventilated for maximum comfort. Seats are form-fitting—more comfortable than ever.

ONLY GMC GIVES ALL THIS EXTRA VALUE—**SUPER-DUTY Engines • POWER-PAK Pistons • RIDER-EASE Cabs • QUICK-VISION Instrument Panels • FRICTION-FREE Steering TOP-SIZE factory-built Bodies • SEALED-BEAM Headlamps • SYNCRO-MESH Transmissions standard or available in light, medium and heavy capacities.**

GMC — THE TRUCK OF VALUE

GMC TRUCKS GASOLINE - DIESEL

VERTISING PAGES REMOVED

Table 1—Consumption of and Contracts for Aviation Fuels of Different Octane Number Grades By the U. S. Army Air Corps, 1932-40

(Figures in Gallons)

Calendar Year	Grade 65	Grade 87	Grade 92 Reg.	Grade 92 Unleaded	Grade 100	Total Aviation Fuel
1932	1,500,000	9,200,000	.....	.....	.....	10,700,000
1933	1,000,000	5,300,000	7,000,000	.....	.....	12,300,000
1934	600,000	.....	13,300,000	.....	.....	13,900,000
1935	550,000	.....	16,300,000	.....	275,000	17,125,000
1936	650,000	.....	15,350,000	170,000	2,580,000	18,750,000
1937	700,000	.....	14,450,000	485,000	6,230,000	21,865,000
1938*	1,200,000	.....	9,000,000	700,000	15,000,000	25,900,000
Fiscal Year 1938-1939	.....	.....	.....	.....	20 to 25 Million	.....
1939-1940	966,000	.....	2,039,000	588,000	27,349,000	30,942,000

*Estimate.

3,275,000,000 gallons of 92-octane, unleaded gasolines are available.

"About 6,000,000,000 gallons of 100-octane aviation gasoline are available yearly when the 92-octane is blended with isopentane and neohexane and light ends from some crudes plus tetra-ethyl lead. This volume of aviation gasoline does not take into consideration the volumes of aviation stock producible from hydrogenation and catalytic cracking of oils."

DR. EGLOFF introduced in his address a table showing the tremendous volumes of hydrocarbon gases produced in this country in 1939, which he had referred to as the prolific source for high octane gasolines which had been "tapped recently." The largest portion of these gases consists of natural gas, other portions are refinery gas from crude distillation, and refinery gas from cracking operations. The total volume of these gases in 1939 Dr. Egloff estimated at over 5,000,000,000,000 cubic feet.

It is catalytic cracking which has given U. S. refineries the tremendous new capacity for producing aviation gasolines during the past year. Leading now is the Houdry process on which Sun Oil Co. and Socony-Vacuum Oil Co. have spent $35,000,000 for construction of new plants the past year. There are now 12 Houdry units in the U. S., while only two were operating at the beginning of 1939. These have a gross charging capacity of 219,500 barrels per day to the heater, 142,500 barrels of which pass through the catalyst bed to be cracked into gasoline.

Other users of catalytic cracking processes in the U. S. include Shell Oil Co., Standard Oil Co. of Louisiana, and Phillips Petroleum Co. The owners of these processes have not indicated what capacity they now have available. It was estimated recently, however, that they have an aggregate capacity of about 75,000 barrels of heater charge daily.

Catalytic cracking differs from thermal cracking in that the chemical reactions are promoted by contact with an inert material which enables the reaction to proceed at a great reduction in pressure and a somewhat lower temperature than in thermal cracking. Thus, Houdry cracking, in one instance of a highly refractory crude oil, takes place at 900° F. and only 30 pounds per square inch pressure as compared to pressures up to 1000 pounds and temperatures from 900° F. up in thermal cracking.

New Source of 100-octane Fuel

In addition to complete plants for handling crude oil, or heavy fuel oils, and producing finished aviation fuels, are the accessory type units which can be added to existing refineries to pro-

An Eastern Air Line Douglas DC-2, 14-passenger Silverliner takes on fuel for the 1196-mile trip from Newark to Miami. The present round-trip flying time of 16 hours was required for one-way a decade ago

duce high-octane blending materials, among which is iso-octane type. These use refinery and natural gases for charge stock, transforming them into liquid hydrocarbons. The first of these, the polymerization process, is already well-known to the industry.

An outstanding development of the technique of producing aviation fuels during the past year through the accessory type of plants has been the commercial application of low temperature sulfuric acid alkylation. This represents the combined efforts of Anglo-Iranian Oil Co., Ltd., Humble Oil & Refining Co., Shell Development Co., Standard Oil Development Co., and The Texas Co. Before development of the Alkylation process most iso-octane material came from catalytic polymerization of selected olefinic refinery gases from the cracking process, a means of forcing the gases to combine chemically into a normally liquid product. This is followed by a low-temperature hydrogenation process to rearrange the chemical structure of the product.

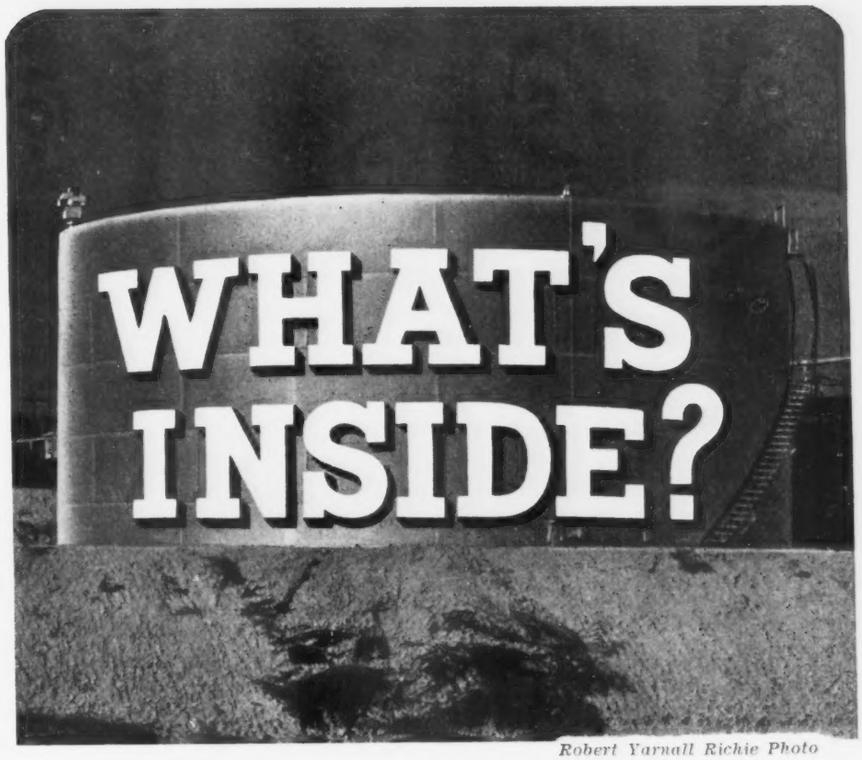
ALKYLATION is said to have simplified the production of iso-octane by eliminating steps in manufacture and making it possible to process the raw materials used at low temperatures and pressures.

Also new is the thermal alkylation process developed by Phillips Petroleum Co. A commercial plant for producing neohexane, another high-octane hydrocarbon more volatile than iso-octane, will start operating in the near future. Neohexane boils at 121.5° F. as compared with 200-240° F. for iso-octane and 180-210° F. for conventional aviation fuel. It responds well to additions of tetraethyl lead, it is said, and is comparable to iso-octane in anti-knock rating with 3 cc. of lead per gallon. Present belief is that neohexane can be used for production of 115-octane gasoline.

Selective catalytic polymerization was new commercially only two years ago. Since then the building of catalytic polymerization plants has proceeded with great speed. Thermal polymerization has not developed so rapidly. Reasons for this may be found in the fact that until just recently it has been necessary to concentrate large quantities of the hydrocarbon gases used as charge stock to make it economic to build a thermal plant.

Indiana Standard Awards Service Pins

CHICAGO—Eight hundred employes, with a combined total of 12,390 years service, will be awarded gold service pins by Standard Oil Co. of Indiana during the first half of 1940. Fifteen employes will be given pins for 40 years of service each, 37 employes for 30 years, 320 employes for 20 years and 428 employes for 10 years.



Robert Yarnall Richie Photo

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General American terminals give you the extra advantages of independent ownership. We know how to keep business confidences. Another reason why so many internationally known businesses have confidence in us. General American gives you all the privacy of your own terminal—completely safe—thoroughly modern, equipped for speed—without a penny's capital investment on your part. Join the world leaders who profit from General American Terminal Service.

Strategically located to serve you!

GATX GENERAL AMERICAN

GENERAL AMERICAN TANK STORAGE TERMINALS

Goodhope, La. and Westwego, La., (Port of New Orleans)
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Carteret, N. J. (Port of New York) Galena Park, Texas (Port of Houston)

A DIVISION OF GENERAL AMERICAN TRANSPORTATION CORPORATION

Carolina Marketer Is His Own Radio Entertainer

PETE THORNELL, Florence, S. C., is an example of a man who hews to the old adage; "He who tooteth not his own horn, his own horn shall not be tooted."

Pete Thornell isn't a musician, but an independent oil marketer, although most people in the Florence section know him better as a radio entertainer.

He pays for the time he uses on the air, but he's an entertainer, just the same, and gets his return for his ability in increased sales at his 10 service stations in the area.

A natural flair for publicity and an "all the world is my brother" personality are Pete's assets—plus "That good Super-X gasoline" that he plugs day and night, over the radio, in the local newspapers and in his conversations with everybody he meets on the street.

Far from resenting hearing Pete (everybody calls him "Pete," and the colored boys all know him as "Mistr Pete") continually talk about "That Good Super-X," the townspeople smile when they see him walking down the street and greet him half a block away, "Hello, Super-X."

Thornell Oil Co.'s main station in Florence, S. C. The company has nine other stations in Florence and nearby towns and is building two more. All have from 5000 to 6000 gallons storage capacity

Pete has been in business for himself in Florence only about three years, but observers say the Thornell Oil Co., is selling about as much Super-X gasoline in the Florence area as all the "branded" stations put together. His only price policy is to sell 1.5 cents a gallon below the major company postings in his territory.

Mr. Thornell started in the oil business in 1920 as a mechanic with Standard Oil Co. of New Jersey, later serving as salesman and district representative. In 1936 he decided to go into business for himself, selling "unbranded."

Opening of his first station in Florence was also the opening gun of the barrage of publicity which Pete has been laying down ever since. To make his station and "That Good Super-X" gasoline known, he bought a sound truck and toured the streets of Florence and the nearby towns, operating the truck and doing the talking simultaneously.

At the same time he contracted for a set space each day in the local newspaper—he uses two spaces now—in which, under the heading "Pete Thornell Says:" he conducts a short column of local tid-bits, written with Pete's sense of humor "showing

FOR WINTER SALES
feature
FREEDOM
10W and 20W
MOTOR OILS
they're 100% pure Pennsylvania
Here are motor oils refined from nature's finest crude, conditioned for cold-weather driving—10 W and 20 W grades in Beaver-Penn, Fort Pitt, Penn Trump and Four-State. There's a steady, year-round demand and rapid turnover for these well-known FREEDOM brands. If you are not familiar with FREEDOM quality, write today for information on exclusive FREEDOM franchise for your territory.
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FOUR-STATE
BEAVER PENN
MOTOR OIL
FORT PITT
MOTOR OIL
100% PURE PENNSYLVANIA OIL

Pete Thornell of the Thornell Oil Co., independent marketing concern in Florence, S. C., in action as his own radio entertainer. He conducts a quiz program three afternoons a week on a downtown street corner. The picture shows Pete and the local station announcer tossing "bon mots"

through." His "readership" is large, as evidenced by the following item from a recent column:

"I certainly appreciate the many expressions from readers of this column who say they read it regularly and enjoy it. One reader told me he was 'glad to see one little business man who had nerve enough to stand up against the big boys and fight.' Well, folks, that fight has just started, and when it's ended, they will all know that Super-X neither asks nor gives quarter. SUPER-X MARCHES ON!"

The "fight" Mr. Thornell refers to is the suit of the state of South Carolina against five major companies, charging them with violation of a state price disrimination statute in connection with commercial consumer accounts. Pete is listed in the state's complaint as one of those allegedly discriminated against. It was he and his attorneys who interested the state in prosecuting the case.

Pete Thornell, independent oil marketer in Florence, S. C., who is his own radio entertainer on behalf of his Super-X gasoline. His ten stations do about 100,000 gallons a month

In addition to his daily "column" in the Florence papers, Pete has an "ad" in every weekly paper in the surrounding towns. "They won't go to press without my ad" he says.

But the most profitable publicity stroke, Pete believes, was when he went on the radio—and he thoroughly enjoys it.

A few minutes before one o'clock three afternoons a week, Pete goes to a drug store on one of the town's main business corners, gets his microphone and a big umbrella out from behind a counter, or wherever he stowed it the last time, and rolls them out on the sidewalk. The citizens know the act, and those who are not at home listening in are down on the street to hear the broadcast and, perhaps, to take part, for that's the kind of a broadcast it is.

After an introduction, in which "That Good Super-X" figures prominently, Pete starts looking around the crowd for someone to come up to be interviewed. It may be a local friend, or a farmer who has just brought a load of cotton to town, or a tourist attracted by the crowd, who stops to see what it is all about.

All the time Pete is talking—and it is all ad lib—he is thumbing through

NO Mechanical Parts—
—NO Attention Required

➡ **What explains the nationwide switch to ECONO-VENT? Why has ECONO-VENT already been adopted as standard by America's most exacting bulk storage operators? What advantages can *you* expect from ECONO-VENT? Here is the answer:**

1. ***ECONO-VENT effects a positive saving of 50% to 75% in evaporation and storage losses.***
2. **ECONO-VENT has *no* mechanical parts (no upkeep, no labor costs for inspection).**
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Proof? We'll gladly submit it on request. Write today.

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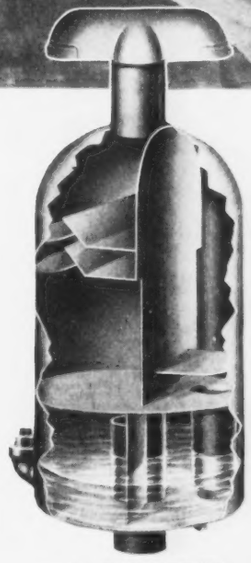

——➤ **ECONO-VENT's advantages are based on a revolutionary new principle of operation—a positive and unfailing principle that assures full protection plus freedom from mechanical attention plus *50% to 75% savings in evaporation and storage losses.* Write for particulars.**

SAVE WITH Econo-vent LIQUID SEAL TANK VENT
THE NEW TYPE TANK VENT WITH THE REVOLUTIONARY *LIQUID SEAL*

a bunch of little cards he dug from his pocket. After asking name, address, "What are you doing in Florence, the Magic City?," and other introductory remarks, Pete asks a question of general information. Examples:

"Well, now that we've got that settled, about who the Vikings were, suppose you tell me what Steve Brodie is remembered for?"

"Jumping off Brooklyn Bridge," answers the guest.

"That's right, that's right. Fine. Now can you tell what gasoline goes further, gives your car more power, doesn't knock, and you can buy it right here in Florence?"

"Super-X."

"Co-rrect. Now you just take this slip and go down and get yourself a quart of Super-X motor oil at any one of the Super-X stations—it won't cost you a dime."

And so it goes. Once in a while some wiseacre trips up the "spieler," but not for long, for Pete can enjoy a joke on himself and then turn it around to be a plug for "Super-X."

One time a shrewd old farmer, asked what he thought of Pete's gasoline, said "It's no worse than any other, I guess."

Pete laughed; the crowd standing around the microphone laughed. Then Pete asked the man what he used in his car. "Super-X," was the answer—and everybody laughed again.

Every person who appears on Pete's radio program is told to go to the nearest station and get a quart of oil gratis. "It gives us another lick at 'em," Pete says, and frequently a tankful of gasoline is sold, along with the free quart of oil, and a new customer is made.

Pete discusses topics of interest to Florence and the surrounding area between questions—which he prepares fresh each day—and there is some cross-talk between him and a radio station announcer during the interludes. It's always something about Super-X though.

Pete's first station did about 200,000 gallons of business in the first 12 months it was open. The second station, acquired about a year after the first, had been averaging about 2500 gallons a month before he took it over. Within six months it was doing 18,000 a month.

Now he has 10 stations, located in Florence, Mullins, Dillon, Cheraw, Marion and Lake City, S. C., and he is building two more—one in Florence (the fifth there) and one in Chesterfield.

Thornell Oil Co.'s bulk plant at Florence holds about 14,000 gallons. The service stations have 5000 or 6000 gallons of storage except those at Florence, where the local ordinance limits storage to a smaller amount. At the present time his 10 stations are doing about 100,000 gallons per month.

In addition to his gasoline and regular service station business, Mr. Thornell is taking a lot of the kerosine business in his territory—on a strictly cash and carry basis. The grocery stores are glad to get rid of the kerosine business, as the oil is likely to slop over deliveries, he says.

So, by plugging Super-Heat kerosine over the air waves, he has built up a business which amounted to 14,800 gallons in August—every station, he says, sells at least 1000 gallons a month.

Richfield on the Air

NEW YORK—Richfield Oil Corp. of New York, starting Jan. 6, is presenting a 15-minute radio program Saturdays at 7:30 p.m., entitled "Confidentially Yours", devoted to the news behind the news. It will be heard over 28 stations of the Mutual Broadcasting System. Commercial copy will include the company's offer to refund double the purchase price of ten gallons of its regular grade gasoline, if the user does not think it is up to the company's claims.

British American Sales Up

OTTAWA—Sales volume of British American Oil Co., Ltd., in 1939, according to J. C. Millar, treasurer, was the greatest in the history of the company. This is the sixth year in succession in which the company has been able to report new high record sales.

"CONTINENTAL OVERSEAS TRADING"

MAURICE J. LETON, Manager

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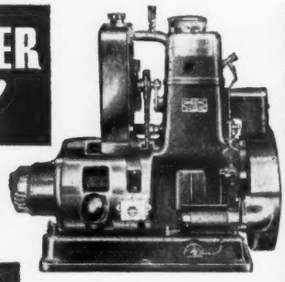
Cable Address: CONOVTRAD

. . . Announce the establishment of a permanent office in the United States for the purchase and export of all petroleum products, especially high grade lubricating oils for aviation and for motorization of the army, oils for automobiles, special Diesel, and all lubricating oils in general. Two large refiners have already granted us privileges for export of their products to various countries, and our policy, whenever possible, is to grant exclusivity to a limited number of customers in each country. Our Belgian headquarters exist since 1922, and we are prepared to furnish the best bank references both in the United States and Belgium.

Make Your Own LIGHT and POWER for Only 1¢ a Kilowatt!



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Make 1940 a bigger profit year by making your own light and power at money-saving low cost with a WITTE Dieselectric Plant. Quality built, rugged, compact, always dependable.

WITTE DIESELECTRIC PLANTS

Give a steady flow of flickerless current. Use cheap, non-explosive fuel—reduce fire hazards, lower insurance rates. Easy to install, simple to operate. 1500 to 8000 watts. $825 and up, f.o.b., K.C., Mo.

● Pay for themselves out of savings. Write now giving your monthly current cost and we'll tell you how you can pay for your WITTE from savings.

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PENNSYLVANIA MOTOR OILS

IN CANS — DRUMS — TANK CARS

Write for **PRICES**

Buyers cans received—stored—filled and shipped as wanted.

INDUSTRIAL OIL CORPORATION

WARREN, PENNA.

ESTABLISHED 1924

Markets

Mid-Continent

TULSA, Jan. 6.—An increase in orders for gasoline was reported by a number of Mid-Continent refiners the first week of the new year. Shipments, they said, were almost entirely against contracts or on market date of shipment basis.

Ranges of quotations reported by refiners were unchanged in all districts except North Louisiana where a reduction of 0.125 cent was made. Several Oklahoma refiners, however, made reductions of 0.125 to 0.25 cent in their quotations, bringing a larger percentage of the refiners' prices nearer the low of the range of quotations.

One manufacturer of bright stock said he was sold up until March, and that he had found another manufacturer who could accept no new business until April, while two others were reported unable to accept new orders for 60 days. This manufacturer canvassed the field in an effort to obtain bright stock and said that as a result of his check he did not believe more than 15,000 barrels were available for prompt shipment on Jan. 1.

Demand for natural gasoline was reported slightly improved by several manufacturers. Prices were steady throughout the week.

Mid-Western

CHICAGO, Jan. 8.—Near-zero temperatures which prevailed throughout the Mid-west at the close of the first week of January resulted in exceptionally good demand for all grades of burner fuels, traders said. Some refiners said that demand had reached a peak unexceeded for several years. Others reported difficulty in filling orders due to lack of sufficient supplies on hand.

Tank car marketers' quotations for domestic burner fuels for the most part were 0.125 cent below refiners' quotations which ranged from 3.50 to 3.75 cents for range oil, 3.50 to 3.625 cents for No. 1 p.w., 3.375 cents for No. 1 straw, 3.25 cents for No. 2 and 3.125 cents for No. 3 fuel, f.o.b. Group 3.

Movement of industrial fuels continued to keep pace with the currently high rate of industrial activity, sellers said. Quotations reported by refiners for heavy fuels were $0.70 for No. 5 and $0.45 to $0.55 for No. 6, f.o.b. Group 3.

Kerosine movement continued to lag and little interest was shown in this product, traders said. Refiners' quotations ranged from 3.625 cents to 4.25 cents for 41-43 w.w. kerosine and from 3.75 to 4.625 cents for 42-44 w.w. kerosine, f.o.b. Group 3.

Offerings of gasoline were reported more numerous both by refiners and tank car marketers at the close of the week. Marketers' quotations, which were 0.125 cent below refiners' prices ranged from 3.25 to 4 cents for 62 octane and below, 4.125 to 4.25 cents for 63-66 octane, 4.125 to 4.50 cents for 67-69 octane and 4.375 to 4.625 cents for 70-72 octane, f.o.b. Group 3. Open spot sales of two cars of 70-72 octane at 4.375 cents, one car of 62 octane and below at 3.75 cents and two cars of 63-66 octane at 4 cents, f.o.b. Group 3 were reported by tank car marketers during the week.

Pennsylvania

CLEVELAND, Jan. 6.—Prices of western Pennsylvania refiners generally were reported unchanged the first week of the new year. No changes were reported in lubricating oil quotations, and such changes as were indicated in the light products were on the highs of price ranges.

Reports of price shading on gasoline, kerosine and fuel oil were heard frequently throughout the week. An upper field refiner early in the week reported withdrawing his price of 4.75 cents for ordinary U. S. Motor gasoline. Late in the week he returned to the market with a price of 4.75 to 5 cents, and said that he had sold some "300,000 gallons at 3.50 cents for Ohio delivery for storage last month."

U. S. Motor was said to have been offered from the lower field at as low as 3.125 cents for Ohio delivery. While some refiners said they were "meeting competition for delivery to some areas," no changes were reported in the low quotations of 4.50 cents.

Atlantic Coast

NEW YORK, Jan. 6.—Higher prices for heavy fuel oils at still more Atlantic coast points were reported by suppliers the past week. One supplier, however, said his posted price for bunker "C" fuel was unchanged at $1.15, New York harbor. Other suppliers have announced advances of 35 cents to $1.50 for this grade. Reports from buyers indicate a price of $1.15 is largely nominal. Some have stated there is no bunker "C" available for spot sale at that price.

Demand for all grades of fuel oils continued heavy, according to reports, with very little available for open spot sale. One supplier said he was "piecing out" his supply of light fuels to contract customers "in order to have enough to go around."

Lows of price ranges for kerosine at Philadelphia, Norfolk and Charleston were advanced by sellers 0.125 to 0.25 cent to 5.50 cents.

Quotations reported for No. 5 fuel by New York suppliers ranged from $1.70 to $1.80. Lows of price ranges for this grade at Philadelphia and Baltimore were advanced 11 and 12 cents a bbl., respectively, to $1.46 and $1.47, and at Boston, up 30 cents to $1.75. No. 6 fuel was quoted from $1.25 to $1.50 at Philadelphia.

Lows of price ranges for 72-74 octane gasoline were reduced 0.25 cent to 6.50 cents at Philadelphia and Baltimore, by one supplier.

Gulf

NEW YORK, Jan. 6.—One refiner reported reducing his prices for most grades of non-GCRA specification gasoline 0.125 to 0.25 cent at the Gulf last week, establishing new lows for this product. Prices reported for GCRA specification gasolines were unchanged.

Low of price ranges for 400 end point, 60 and 65 octane gasolines were reduced 0.125-cent to 5.375 and 5.625 cents, respectively. Lows of ranges for 390 and 375 end point grades generally were down 0.25-cent.

Some Gulf refiners reported increased activity in fuel oils over the past several weeks. An inquiry for a cargo a month of No. 2 fuel, lifting to begin in April, was reported in the market. One refiner said he had at-

(Continued from page 43)

N. P. N. Refinery Index

The Refinery Index shown below represents the return in cents per barrel (42 gallons) from refining a barrel of 36 gravity Mid-Continent crude into its various principal products. The index is calculated by subtracting the current price of crude at the well from the average price of refined products sold at current quoted Oklahoma refinery market prices.

Date	Margin
Jan. 3	47.9
Month ago	57.4
Year ago	34.7

N.P.N. Gasoline Index

	Dealer T.w. Cents per	Tank Car Gallon
Jan. 8	9.79	6.03
Month ago	9.59	6.16
Year ago	9.59	5.40

Dealer index is an average of "undivided" dealer prices, ex-tax, in 50 cities.

Tank car index is a weighted average of 9 wholesale markets for regular-grade gasoline.

REFINERY TANK CAR MARKETS

All prices on this page are publisher's opinion of open market quotations or sales, for spot shipment (10 to 15 days) unless otherwise stated. Prices in cents per gallon, except heavy fuel oils in dollars per barrel of 42 gallons, wax and petrolatums in cents per pound in barrels, tank car lots, FOB refineries in districts designated, except where otherwise noted. Inter-refinery and export prices not included unless so stated in the respective markets. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude. Unless otherwise noted, gasoline octane ratings are determined by C.F.R. Motor method, A.S.T.M. D-357-33T; and lubricating oil specifications determined according to A.S.T.M. methods, unless otherwise noted

Gasoline

Prices Effective	Jan. 8	Jan. 2
OKLAHOMA Refiners' Quotations & Sales Prices		
U. S. Motor: (Oct. L-3)		
62 oct. & below	4.00 – 4.625	4.00 – 4.625
63-66 oct.	4.25 – 4.625	4.25 –4.6875
67-69 oct.	4.50 – 5.125	4.50 –5.125
70-72 oct.	4.75 – 5.375	4.75 – 5.375
60-62 400 e.p.	(c)4.25	(c) 4.25 –4.375
WESTERN PENNA. REFINERS' QUOTATIONS		
Bradford-Warren:		
Motor gasoline:		
U.S. Motor (58-62°)	(a) 4.75 –5.00	(f)
Min. 65 oct.	6.50 – 6.75	6.50 – 6.75
"Q" gasoline	6.75	6.75
75-76 oct. (L-3)	(a)7.05	(a)7.05
Other districts:		
Motor gasoline:		
U. S. Motor (58-62° gravity):	4.50 – 5.00	4.50 – 5.00
66-68 oct. (L-3)	(a)6.00	(a)6.00
"Q" gasoline	5.75 – 5.875	5.75 – 6.00
75-76 oct. (L-3)	(a) 6.25	(a) 6.25
CENTRAL MICHIGAN (h)		
Str.-Run Gasoline	(i)4.25	(i)4.25
U.S. Motor: (Oct. L-3)		
67-69 oct.	(c) 6.25	(c)6.25
72-74 oct.	(c) 7.00	(c)7.00

Prices Effective	Jan. 8	Jan. 2
CALIFORNIA		
U. S. Motor:		
54-58 gravity, for in-state shipment	6.00 – 9.25	6.00 – 9.25
54-58 gravity, for out-side state shipment	6.50 – 9.00	6.50 – 9.00
58-61 gravity, 375-400 e.p., 65 oct. & above	7.50 – 9.75	7.50 – 9.75
N. TEX. REFINERS' QUOTATIONS (b)		
U. S. Motor: (Oct. L-3)		
62 oct. & below	4.00 – 4.25	4.00 – 4.25
63-66 oct.	4.25 – 4.50	4.25 – 4.50
67-69 oct.	4.50 – 5.00	4.50 – 5.00
70-72 oct.	4.75 – 5.25	4.75 – 5.25
60-62, 400 e.p.	(c)4.00	(c) 4.00 –4.25
KANSAS (For Kansas destinations only)		
U. S. Motor: (Oct. L-3)		
62 oct. & below	(e)4.50	(e)4.625
67-69 oct.	(e)4.75	(e)4.875
70-72 oct.	(e)5.25	(e)5.375
W. TEX. REFINERS' QUOTATIONS (b)		
U. S. Motor: (Oct. L-3)		
62 oct. & below	(c)4.50	(c)4.50
63-66 oct.	(c) 4.75 –5.00	(c) 4.75 –5.00
67-69 oct.	4.75 –5.00	4.75 – 5.00
70-72 oct.	5.125–5.25	5.125– 5.25

Prices Effective	Jan. 8	Jan. 2
CENT. W. TEX. REFINERS' QUOTATIONS (Prices to truck transports)		
U. S. Motor: (Oct. L-3)		
62 oct. & below		(e)4.375
63-66 octane		(e)5.00
66-70 octane		(i)
E. TEX. REFINERS' QUOTATIONS		
U. S. Motor: (Oct. L-3)		
70-72 oct.	(a)4.75	(a)4.75
60-62, 400 e.p.	(a)4.25	(a)4.50
N. LA. REFINERS' QUOTATIONS (For shipment to La. & Ark.)		
U. S. Motor: (Oct. L-3)		
62 oct. & below	(a) 4.125–4.375	(a) 4.25 –4.50
63-66 oct.	(a) 4.375–4.625	(a) 4.50 –4.75
70-72 oct. leaded	(a) 4.875–5.125	(a) 5.00 –5.25
ARKANSAS REFINER'S QUOTATIONS (F.o.b. Ark. plant of one refiner, for shipment to Ark. & La.)		
U. S. Motor: (Oct. L-3)		
62 oct. & below	4.25	4.25
67-69 oct.	4.75	4.75
70-72 oct.	5.00	5.00
OHIO (S. O. Ohio quotations for statewide delivery and subject to exceptions for local price disturbances)		
70-72 oct.	7.50	7.50

(Continued on next page)

MID-WESTERN REFINERS' TANK CAR QUOTATIONS

Prices in this Midwestern Refiners' Tank Car Market table are gathered from refiners from their offices located in Chicago and the surrounding territory. While the prices are quoted on a Group 3 (Oklahoma) freight rate basis, this is in accordance with the custom of the oil industry which uses Group 3 as a price basis for the ease of comparing prices even when the material originates in another refining district. All other gasoline prices are given by and for the particular refining district where the material is made and from which it is shipped.

Gasoline

Prices Effective	Jan. 8	Jan. 2
U. S. Motor: (Oct. L-3)		
62 oct. & below	4.00 – 4.625	4.00 – 4.625
63-66 oct.	(c)4.25	(a&k)4.25
67-69 oct.	4.50 – 5.125	4.50 – 5.125
70-72 oct.	4.75 – 5.375	4.75 – 5.375

Kerosine

41-43 grav. w.w.	3.625– 4.25	3.625– 4.25
42-44 grav. w.w.	3.75 – 4.625	3.75 – 4.625

Fuel and Gas Oils

Prices Effective	Jan. 8	Jan. 2
No. 1 p.w.	3.50 – 3.625	3.50 – 3.75
No. 1 straw	(c)3.375	(c)3.375
No. 2 straw	3.25	3.25
No. 3	3.125	3.125
No. 5	(a)$0.70	(c) $0.65–$0.70
No. 6	$0.45 –$0.55	$0.45 –$0.55
Range oil	(c) 3.50 –3.75	(c) 3.50 –3.875

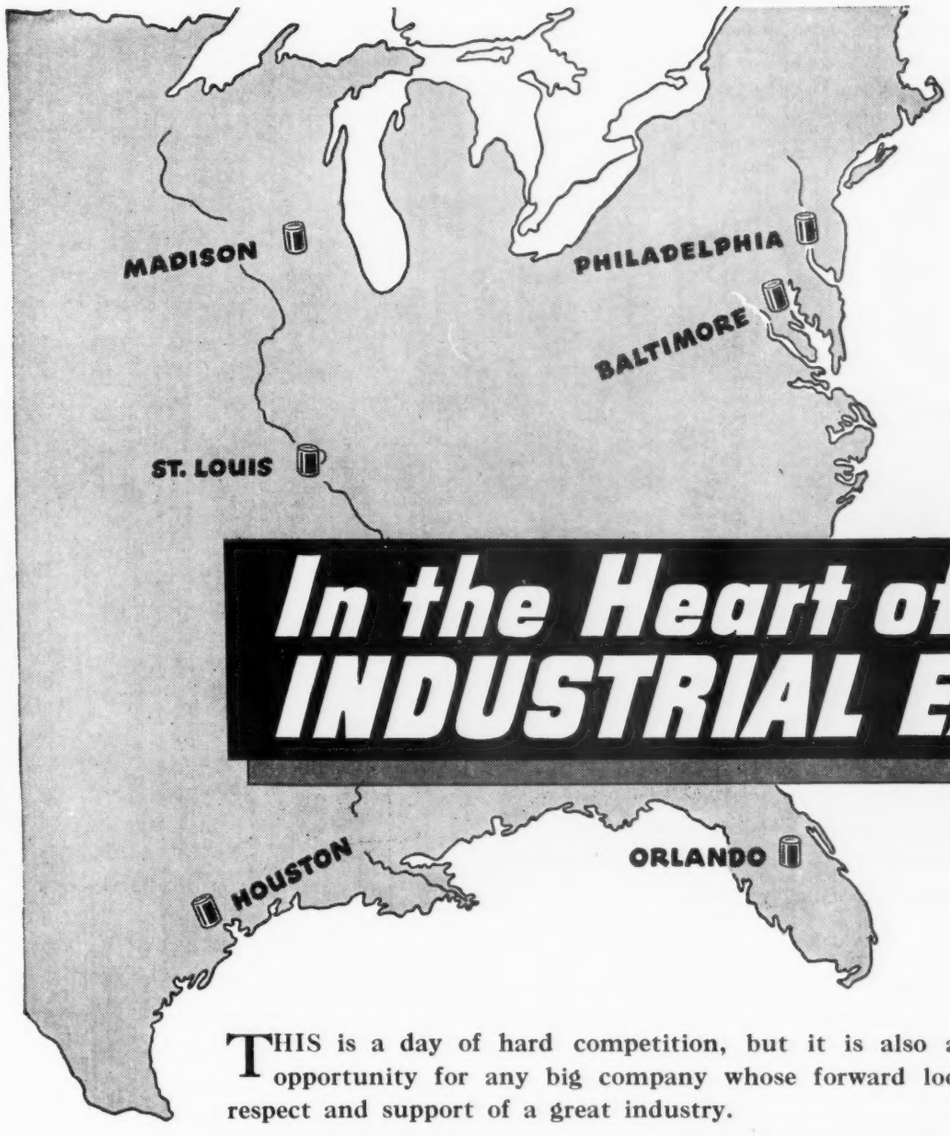
Naphtha and Solvent

Prices Effective	Jan. 8	Jan. 2
(FOB Group 3 as quoted by two Chicago sellers)		
Stoddard solvent	6.375	6.375
Cleaners' naphtha	6.875	6.875
V. M. & P. naphtha	6.875	6.875
Mineral spirits	5.875	5.875
Rubber solvent	6.875	6.875
Lacquer diluent	7.875	7.875

Daily range of gasoline prices as reported in PLATT'S OILGRAM (Week Ended Jan. 5, 1940)

	Jan. 2	Jan. 3	Jan. 4	Jan. 5
U. S. Motor, (Octane Number determined according to L-3 Method in Okla., Texas and Mid-Western Districts):				
62 octane and below:				
Oklahoma	4.00 – 4.625	4.00 – 4.625	4.00 – 4.625	4.00 – 4.625
(a) North Texas	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25
West Texas	(c)4.50	(c)4.50	(c)4.50	(c)4.50
Mid-Western (Group 3 basis)	4.00 – 4.625	4.00 – 4.625	4.00 – 4.625	4.00 – 4.625
63-66 octane:				
Oklahoma	4.25 –4.6875	4.25 –4.6875	4.25 –4.6875	4.25 – 4.625
(a) North Texas	4.25 – 4.50	4.25 – 4.50	4.25 – 4.50	4.25 – 4.50
West Texas	(c) 4.75 –5.00	(c) 4.75 –5.00	(c) 4.75 –5.00	(c) 4.75 –5.00
Mid-Western (Group 3 basis)	(c)4.25	(c)4.25	(c)4.25	(c)4.25
67-69 octane:				
Oklahoma	4.50 – 5.125	4.50 – 5.125	4.50 – 5.125	4.50 – 5.125
(a) North Texas	4.50 – 5.00	4.50 – 5.00	4.50 – 5.00	4.50 – 5.00
West Texas	4.75 – 5.00	4.75 – 5.00	4.75 – 5.00	4.75 – 5.00
Mid-Western (Group 3 basis)	4.50 – 5.125	4.50 – 5.125	4.50 – 5.125	4.50 – 5.125
70-72 octane:				
Oklahoma	4.75 – 5.375	4.75 – 5.375	4.75 – 5.375	4.75 – 5.375
(a) North Texas	4.75 – 5.25	4.75 – 5.25	4.75 – 5.25	4.75 – 5.25
West Texas	5.125– 5.25	5.125– 5.25	5.125– 5.25	5.125– 5.25
East Texas	(a)4.75	(a)4.75	(a)4.75	(b)4.75
Mid-Western (Group 3 basis)	4.75 – 5.375	4.75 – 5.375	4.75 – 5.375	4.75 – 5.375
Motor Gasoline, 60-64 octane				
New York harbor	(b)6.70	(b)6.70	(b)6.70	(f)6.70
Philadelphia district	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75
Baltimore district	6.25 – 6.75	6.25 – 6.75	6.25 – 6.75	6.25 – 6.75
Motor Gasoline, 65 octane & above:				
New York harbor	(j) 6.50 – 7.30	6.50 – 7.30	6.50 – 7.30	6.50 – 7.30
Philadelphia district	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75
Baltimore district	6.50 – 7.00	6.50 – 7.00	6.50 – 7.00	6.50 – 7.00
U. S. Motor, 58-62°:				
Bradford-Warren (Western Penna.)	(f)	(f)	(a) 4.75 –5.00	(c) 4.75 –5.00
Other districts (Western Penna.)	4.50 – 5.00	4.50 – 5.00	4.50 – 5.00	4.50 – 5.00
Motor Gasoline, Min. 65 octane				
Bradford-Warren (Western Penna.)	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75
"Q" Gasoline				
Bradford-Warren (Western Penna.)	6.75	6.75	6.75	(c)6.75
Other Districts (Western Penna.)	5.75 – 6.00	5.75 – 6.00	5.75 – 5.875	5.75 – 5.875
73-74 Octane (L-3)				
Bradford-Warren (Western Penna.)	(f)	(f)	(f)	(f)
75-76 Octane (L-3)				
Bradford-Warren (Western Penna.)	7.05	(a)7.05	(a)7.05	(a)7.05

(a) One refiner quoting. (b) One supplier quoting. (c) Two refiners quoting. (d) Two suppliers quoting. (e) Prices nominal. (f) No quotations reported. (g) Prices FOB Central Michigan refinery group basis, for shipment within Michigan. Shipments may originate at plants outside Central group. (h) For shipment to Texas and New Mexico destinations. Group 3 prices quoted for northern shipment. (i) Excluding Detroit shipment. (j) Correction: This is correct price for Dec. 20 also, instead of 6.75-7.30 published on page 19 of Dec. 27 issue. (k) Correction: Correct price for Jan. 2 is 4.25c, instead of 4.25 to 4.375 as published on page 19 of Jan. 3 issue.



In the Heart of the INDUSTRIAL EAST

THIS is a day of hard competition, but it is also a day of unparalleled opportunity for any big company whose forward looking policies win the respect and support of a great industry.

More and more it is being realized that modern needs demand modern facilities and equipment.

More and more the industry is recognizing that these modern needs are being superlatively met in Crown's great new plant in Philadelphia — and at strategic points for the convenience of the industry.

CROWN CAN COMPANY, PHILADELPHIA, PA.
Division of Crown Cork and Seal Co.
BALTIMORE ST. LOUIS HOUSTON MADISON ORLANDO

CROWN CAN

INDEPENDENT AND HELPFUL

REFINERY TANK CAR MARKETS

All prices on this page are publisher's opinion of open market quotations or sales, for spot shipment (10 to 15 days). Prices in cents per gallon except heavy fuel oils in dollars per barrel of 42 gallons, tank car lots, FOB refineries in districts designated, except where otherwise noted. Inter-refinery and export prices not included, unless so stated in the respective markets. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude. Unless otherwise noted, gasoline octane ratings are determined by C.F.R. Motor method, A.S.T.M. D-357-33T; and lubricating oil specifications determined according to A.S.T.M. methods, unless otherwise noted.

Natural Gasoline Prices

(Prices to blenders on freight basis shown below. Shipments may originate in any Mid-Continent manufacturing district.)

Prices Effective	Jan. 8	Jan. 2
FOB GROUP 3		
Grade 26-70	(l)2.50	(m)2.50
FOB BRECKENRIDGE		
Grade 26-70	(l)2.25	(m)2.25
CALIFORNIA (F.o.b. plants in Los Angeles basin)		
75-85, 350-375 e.p. for blending	6.00 – 6.25	6.00 – 6.25

Kerosine

WESTERN PENNA. REFINERS' QUOTATIONS		
Bradford-Warren:		
45 grav. w.w.	4.875– 5.00	4.875– 5.00
46 grav. w.w.	(e)5.125	(e)5.125
Other districts:		
45 grav. w.w.	4.50 – 4.75	4.50 – 4.75
46 grav. w.w.	4.625– 4.75	4.625– 4.875
47 grav. w.w.	4.75 – 4.875	4.75 – 5.00
CENTRAL MICHIGAN (a)		
47-49 gravity w.w.	5.00 – 5.20	4.80 – 5.00
OKLAHOMA Refiners' Quotations & Sales Prices		
41-43 grav. w.w.	3.625– 4.25	3.625– 4.25
42-44 grav. w.w.	3.75 – 4.625	3.75 – 4.625
KANSAS (For Kansas destinations only)		
41-43 gravity w.w.	(e)4.00	(e)4.125
42-44 gravity w.w.	(e)4.25	(e)4.375
N. TEX. REFINERS' QUOTATIONS (b)		
41-43 grav. w.w.	(h) 3.75 –4.00	(e)3.75 –4.00
E. TEX. REFINERS' QUOTATIONS		
41-43 grav. w.w.	(e)3.50	(e)3.50
N. LA. REFINERS' QUOTATIONS (For shipment to La. and Ark.)		
41-43 grav. w.w.	(e) 3.50 –3.75	(e)3.50 –3.75
ARK. REFINER'S QUOTATIONS (F.o.b. Ark. plant of one refiner for shipment to Ark. and La.)		
41-43 grav. w.w.	4.00	4.00
CALIFORNIA		
40-43 grav. w.w.	4.50 – 6.00	4.50 – 6.00

Gas and Fuel Oils

WESTERN PENNA. REFINERS' QUOTATIONS		
Bradford-Warren:		
36-40 gravity	(h)4.625	(h)4.625
Other districts: (Excluding Pittsburgh District Prices)		
36-40 gravity	3.875– 4.50	3.875– 4.50
CENTRAL MICHIGAN (a)		
P.W. Distillate	4.75 – 5.00	4.50 – 5.00
No. 3 gas oil, Str.	4.25 – 4.50	4.25 – 4.50
U.G.I. gas oil	3.50 – 3.75	3.50 – 3.75
Fuel Oils (Vis. at 100):		
500-700 Vis.	(e)3.25	(e)3.25
300-500 Vis.	(e) 3.25 –3.50	(e)3.25 –3.50
100-300 Vis.	(e) 3.50 –3.75	(e)3.50 –3.75
OKLAHOMA		
No. 1 P.W.	3.50 – 3.625	3.50 – 3.625
No. 1 straw	3.375– 3.50	3.375– 3.50
No. 2 straw	3.25 – 3.375	3.25 – 3.375
No. 2 dark	(h)3.25	(h)3.25
U.G.I. gas oil	(h)3.25	(p)3.25
No. 3 fuel	3.125	(p) 3.125-3.1875
No. 5 fuel	(e)$0.65	(e)$0.65
No. 6 fuel	(e)$0.50	(e)$0.45
14-16 fuel	(e)$0.80	(e)$0.80
Range Oil	3.50 – 3.625	3.50 – 3.625
KANSAS (For Kans. destinations only).		
No. 1 p.w.	3.75	3.875
No. 6 fuel	(h) $0.50–$0.60	(h)$0.50–$0.60
N. TEX. REFINERS' QUOTATIONS (b)		
No. 1 P.W.		
E. TEX. REFINERS' QUOTATIONS		
No. 1 p.w.	(e)3.375	(e)3.375
N. LA. REFINERS' QUOTATIONS (For shipment to La. and Ark.)		
10-14 grav.	(e) $0.65–$0.70	(e)$0.65–$0.70
ARK. REFINER'S QUOTATIONS (F.o.b. Ark. plant of one refiner, for shipment to Ark. and La.)		
No. 1	3.75	3.75
No. 2	3.375	3.375
28-32 zero fuel	3.25	3.25
Tractor Fuel	(j)4.50	(j)4.50

Prices Effective	Jan. 8	Jan. 2
CALIFORNIA		
San Joaquin Valley:		
Heavy fuel	$0.55 –$0.75	$0.55 –$0.75
Light fuel	$0.75 –$0.85	$0.75 –$0.85
Diesel fuel (per gal.)	2.75 – 4.00	2.75 – 4.00
Stove dist. (per gal.)	3.00 – 5.00	3.00 – 5.00
Los Angeles:		
Heavy fuel	$0.55 –$0.75	(o) $0.55–$0.75
Light fuel	$0.70 –$0.85	(o) $0.70–$0.85
Diesel fuel (per gal.)	2.75 – 4.00	2.75 – 4.00
Stove dist. (per gal.)	2.75 – 5.00	2.75 – 5.00
San Francisco:		
Heavy fuel	$0.80	(o)$0.80
Light fuel	$0.90	(o)$0.90
Diesel fuel (per gal.)	4.50	4.50
Stove dist. (per gal.)	5.50	5.50

Note: All above heavy fuels meet Pacific specification 400: light fuel, spec. 300; Diesel fuels, spec. 200; and stove distillate, spec. 100.

Neutral Oils

WESTERN PENNA. REFINERS' QUOTATIONS

Important Note: Penna. lube prices reported by refiners as for limited sale to regular customers only.

Viscous Neutrals No. 3 col. (Viscosity at 70° F.)

200 Vis. (180 at 100°) 420-425 fl.		
0 p.t.	(e)34.50	(e)34.50
10 p.t.	(e)33.50	(e)33.50
15 p.t.	(e)32.50	(e)32.50
25 p.t.	31.00 –34.00	31.00 –34.00
150 Vis. (143 at 100) 400-405 fl.		
0 p.t.	(e)31.50	(e)31.50
10 p.t.	(e)30.50	(e)30.50
15 p.t.	(e)29.50	(e)29.50
25 p.t.	28.00 –30.00	28.00 –30.00

SOUTH TEXAS

Vis. Color		
Pale Oils: (*Vis. at 100°F*)		
100 No. 1½-2½	5.75 – 6.00	5.75 – 6.00
200 No. 2-3	7.50 – 7.75	7.50 – 7.75
300 No. 2-3	8.00 – 8.25	8.00 – 8.25
500 No. 2½-3½	9.00 – 9.25	9.00 – 9.25
750 No. 3-4	9.50 – 9.75	9.50 – 9.75
1200 No. 3-4	9.875–10.50	9.875–10.50
2000 No. 4	10.00 –10.75	10.00 –10.75
Red Oils:		
200 No. 5-6	7.50 – 7.75	7.50 – 7.75
300 No. 5-6	8.00 – 8.25	8.00 – 8.25
500 No. 5-6	9.00 – 9.25	9.00 – 9.25
750 No. 5-6	9.50 – 9.75	9.50 – 9.75
1200 No. 5-6	9.875–10.50	9.875–10.50
2000 No. 5-6	10.00 –10.75	10.00 –10.75

MID-CONTINENT (Vis. at 100° F.; F.o.b. Tulsa)

Pale Oils: (0 to 10 P.P.)		
Vis. Color		
60-85—No. 2	6.50 – 7.50	6.50 – 7.50
86-110—No. 2	6.75 – 8.00	6.75 – 8.00
150—No. 3	12.25 –13.75	12.25 –13.75
180—No. 3	13.00 –14.00	13.00 –14.00
200—No. 3	13.50 –14.50	13.50 –14.50
250—No. 3	14.50 –16.00	14.50 –16.00
280—No. 3	15.50 –17.25	15.50 –17.25
300—No. 3	17.50 –17.75	17.50 –17.75
Red Oils:		
180—No. 5	(e)13.50	(e)13.50
200—No. 5	13.00 –14.00	13.00 –14.00
280—No. 5	14.75 –16.00	14.75 –16.00
300—No. 5	(h) 16.25–16.75	(h)16.25–16.75

Note: Viscous Neutrals, 15-25 p.p. generally are quoted 0.5c under 0-10 p.p. oils. Non-viscous oils, 15-25 p.p., generally are quoted 0.25c under 0-10 p.p. oils.

CHICAGO (Vis. at 100° F)

(e) Pale Oils 0 to 10 p.p.		
Vis. Color		
60-85—No. 2	8.25	8.25
86-110—No. 2	8.50	8.50
150—No. 3	12.75	12.75
180—No. 3	14.00	14.00
200—No. 3	14.50	14.50
250—No. 3	15.50	15.50

Prices Effective	Jan. 8	Jan. 2
CHICAGO (Continued)		
(e) Red Oils:		
180—No. 5	13.50	13.50
200—No. 5	14.00	14.00
250—No. 5	14.50	14.50
280—No. 5	15.50	15.50
300—No. 5	17.25	17.25

Note: Viscous oils, 15 to 30 p.p. are quoted 0.5c lower; 60-85 and 86-110 No. 2 non-viscous oils, 15 to 30 p.p., 0.25c lower. To obtain delivered prices in Chicago, add 0.25c per gal.

Cylinder Stocks

MID-CONTINENT (F.o.b. Tulsa)		
Bright Stocks:		
190-200 Vis. at 210° D.	(e)28.00	(e)28.00
150-160 Vis. at 210° D:		
0 to 10 p.p.	24.00 –25.00	24.00 –25.00
10 to 25 p.p.	23.00 –24.50	23.00 –24.50
25 to 40 p.p.	(h)24.00	24.00
150-160 vis. at 210° E.	22.00 –24.00	21.00 –24.00
120 Vis. at 210° D:		
0 to 10 p.p.	22.75 –24.00	22.75 –24.00
25 to 40 p.p.	(e)22.50	(e)22.50
600 S.R. Dark Green	(e)8.00	(e)8.00
600 S.R. Olive Green	9.00 – 9.50	9.00 – 9.50
631 S.R.	(e)21.00	(e)21.00
Black Oil	(h) 4.00 –5.50	(h)4.00 –5.50

(e) CHICAGO (Viscosity at 210°)

Unfiltered Steam Refined:		
140	10.00	10.00
160	11.00	11.00
200	12.00	12.00
Bright stocks, 160 vis. at 210, No. 8 color:		
0 to 10 p.p.	24.75	24.75
15 to 25 p.p.	23.75	23.75
30 to 40 p.p.	23.25	23.25
E filtered Cyl. Stock	14.50	14.50

Note: To obtain prices delivered in Chicago, add 0.25c per gal.

WESTERN PENNA. REFINERS' QUOTATIONS

Important Note: Penna. lube prices reported by refiners as for limited sale to regular customers only.

600 S.R. filterable	18.00 –19.00	18.00 –19.00
650 S.R.	20.00 –21.00	20.00 –21.00
600 fl.	21.00 –23.00	21.00 –23.00
630 fl.	24.00 –25.00	24.00 –25.00
Brt. stk, 145-155 vis. at 210°, 540-550 fl., No. 8 col.		
10 p.t.	34.50 –36.00	34.50 –36.00
15 p.t.	33.50 –35.00	33.50 –35.00
25 p.t.	32.00 –35.00	32.00 –35.00

Petrolatums

WESTERN PENNA. (Bbls., carloads; tank cars, 0.5c per lb. less.)		
Snow White	7.625– 8.25	7.625– 8.25
Lily White	6.625– 7.25	6.625– 7.25
Cream White	5.625– 6.25	5.625– 6.25
Light Amber	3.875– 4.50	3.875– 4.50
Amber	3.625– 4.25	3.625– 4.25
Red	3.50 – 3.75	3.50 – 3.75

Wax

WESTERN PENNA. REFINERS' QUOTATIONS In bbls., carloads. N. Y.		
122-124 A.m.p., w.c. scale	(e)6.75	(e)6.75
124-126 A.m.p., w.c. scale	6.75 – 6.875	6.75 – 6.875
OKLAHOMA Refiners' Quotations & Sales Prices. (In bbls. or burlap bags, carloads)		
124-126 A.m.p., w.c. scale	(h)6.75	(h)6.75

CHICAGO QUOTATIONS (FOB Chicago district refinery of one refiner, in bags or slabs loose, carloads. Melting points are E.M.P. (A.S.T.M.) methods; add 3° F. to convert into A.m.p.)

Fully refined:		
122-124 (bags only)	6.10	6.10
125-127	6.10	6.10
127-129	6.35	6.35
130-132	6.65	6.65
132-134	6.90	6.90
135-137	7.65	7.65

(a) Prices FOB. Central Michigan refinery group basis, for shipment within Mich. Shipments may originate at plants outside Central group. (b) For shipment to Texas and New Mexico destinations; Group 3 prices quoted on northern shipments. (e) Excluding Detroit shipment. (e) One refiner quoting. (f) No quotations reported. (g) To resellers holding licenses. (h) Two refiners quoting. (j) For shipment to Ark. points only. (k) Two suppliers quoting. (l) Quotations. (m) Sales. (n) No quotations reported. (o) These prices correct for Jan. 2. (p) Correction: This price for U.G.I. gas oil is correct for Dec. 18, 26 and Jan. 2. No. 3 fuel oil is 3.125-3.1875c, Dec. 18, 26 and Jan. 2.

TANK WAGON MARKETS

Tank car, tank wagon, dealer, and service station prices for gasoline **do not include taxes;** *they do, however, include inspection fees as shown in general footnote. Gasoline taxes, shown in separate column, include 1c federal, and state taxes; also city and county taxes as indicated in footnotes. Kerosine tank wagon prices also do not include taxes; kerosine taxes, where levied, are indicated in footnotes. Dealer discounts are shown in footnotes; for commercial consumer discounts, see NPN for March 29, April 12, April 19 and June 7, 1939, or write to N.P.N. These prices in effect Jan. 8, 1940 as posted by principal marketing companies at their headquarters offices, but subject to later correction.*

S. O. New Jersey

Esso
(*Regular Grade*)

	Consumer Tank Car	Dealer T.W.	Gasoline Taxes	Kerosine T.W.
*Atlantic City, N. J.	7.6	8.7	4	8.1
*Newark, N. J.	7.6	8.7	4	8.1
Annapolis, Md.	8.35	9.35	5	9.50
Baltimore, Md.	7.75	8.75	5	8.5
Cumberland, Md.	9.15	10.15	5	10
Washington, D. C.	8.0	9	3	9.5
Danville, Va.	8.95	11.45	6	12.9
Norfolk, Va.	7.75	10.25	6	11
Petersburg, Va.	8.05	10.55	6	11.7
Richmond, Va.	8.05	10.55	6	10.7
Roanoke, Va.	9.25	11.75	6	11
Charleston, W. Va.	8.55	11.05	6	12.6
Parkersburg, W. Va.	7.85	9.85	6	11.2
Wheeling, W. Va.	8.85	10.75	6	12.2
Charlotte, N. C.	9.9	11.4	7	11.8
Hickory, N. C.	10.45	11.95	7	12.3
Mt. Airy, N. C.	10.3	11.8	7	12.2
Raleigh, N. C.	9.65	11.15	7	11.5
Salisbury, N. C.	9.95	11.45	7	11.9
Charleston, S. C.	7.75	10.25	7	10.6
Columbia, S. C.	8.6	11.1	7	11.5
Spartanburg, S. C.	9.3	11.8	7	12.2

Discount to undivided dealers on Esso: thru territory except New Jersey points, which see in "Note" below: Dealer t.w. price less 0.5c per gal.

*Effective Sept. 14, 1939, S. O. New Jersey posted a minimum retail resale price of 11.9c thru New Jersey.

Note: While the above posted prices continue at Atlantic City and Newark, N. J., dealers will pay a net price of 8.6c per gal. for Essolene. Dealers having pumps marked only, Esso, Esso Extra and "Standard" White gasoline will pay 8.1c per gal. for Essolene.

Kerosine Discount: 1c off t.w. price for 25 gals., or more, under contract thru territory (Baltimore City contract not necessary) except no discount in state of New Jersey.

Socony-Vacuum Oil Co., Inc.

(*S. O. New York Division*)

	Socony Mobilgas (*Regular Grade*) Consumer Tank Car	"Split" Dealer T.W.	Gasoline Taxes	Kerosine T.W.
Metropolitan N. Y. City: Boroughs of Manhattan, Bronx and Brooklyn (Kings and Queens)	7.7	9.2	*5	8.50
Borough of Richmond (Staten Is.)	7.7	9.2	*5	8.50
Albany, N. Y.	7.6	9.2	5	8.30
Binghamton, N. Y.	8.9	9.5	5	9.30
Buffalo, N. Y.	8.1	9.5	5	7.6
Jamestown, N. Y.	7.7	9.5	5	7.7
Plattsburg, N. Y.	8.1	10.6	5	8.90
Rochester, N. Y.	8.3	10	5	8.4
Syracuse, N. Y.	8.2	9.5	5	8.80
Bridgeport, Conn.	7.8	8.8	4	8.10
Danbury, Conn.	8.3	9.6	4	9.00
Hartford, Conn.	7.9	9.3	4	8.40
New Haven, Conn.	7.8	8.8	4	7.50
Bangor, Me.	7.9	10	5	8.40
Portland, Me.	7.6	9.4	5	8.50
Boston, Mass.	7.5	9	4	8.50
Concord, N. H.	8.4	10.7	5	9.10
Lancaster, N. H.	9.2	11.7	5	9.90
Manchester, N. H.	8.3	10.3	5	8.90
Providence, R. I.	7.5	9.3	5	8.50
Burlington, Vt.	8.1	10.0	5	8.70
Rutland, Vt.	8.5	10.5	5	8.90

*Plus 2% city sales tax computed at time of each sale.

Discount to undivided dealers: 0.5c less than "split" dealer t.w.

Atlantic Refining

Atlantic White Flash Gasoline
(*Regular Grade*)

	Commercial Tank Car	Dealer T.W.	Gasoline Taxes	Kerosine T.W.
Philadelphia, Pa.	7.5	9	5	10
Pittsburgh	8	9.5	5	10.5
Allentown	8	9.5	5	10.5
Erie	8	9.5	5	10
Scranton	7.5	10	5	10.5
Altoona	8	10	5	10.5
Emporium	8	10	5	10.5
Indiana	8	10	5	10.5
Uniontown	8	10	5	10.5
Harrisburg	8	9.5	5	10.5
Williamsport	8.5	10	5	10.5
Dover, Del.	....	8.5	5	10.5
Wilmington	....	9	5	9.75
Boston, Mass.	....	9	4	8.5
Springfield, Mass.	....	9	4	9.0
Worcester, Mass.	....	9.5	4	8.4
Fall River, Mass.	....	8.5	4	8.5
Hartford, Conn.	....	9.3	4	8.5
New Haven, Conn.	....	8.8	1	8.5
Providence, R. I.	....	9.3	4	8.5
Atlantic City, N. J.	....	8.6	4	8.1
Camden, N. J.	....	8.6	4	8.1
Trenton, N. J.	....	8.6	4	8.1
Annapolis, Md.	....	9.35	5	9.5
Baltimore, Md.	....	8.75	5	8.5
Hagerstown, Md.	....	9.85	5	10
Richmond, Va.	....	10.55	6	10.7
Wilmington, N. C.	....	10.35	7	10.8
Brunswick, Ga.	....	10	7	*11
Jacksonville, Fla.	....	9	8	10

*Georgia has kerosine tax of 1c per gal., not included in above price.

Discount to undivided dealers: Dealer t.w. less 0.5c per gal. except in Georgia and Florida, dealer t.w. and undivided dealer price is same.

Discounts: At Scranton, Pa., 1c per gal. voluntary discount allowed to dealers only, effective July 8, 1939.

Kerosine discount: Thru Pennsylvania and Delaware, 2c per gal. off t.w. price on t.w. deliveries of 25 gals. or more at one time, effective since Oct. 29, 1936.

S. O. Ohio

Sohio X-70 Gasoline
(Regular Grade)

	Consumer T.W.	†Divided Dlr.	Gasoline ‡S.S.	Gasoline Taxes	Kerosine T.W.
Ohio, Statewide	11	10	13	5	*12
Akron	11	9	13	5	*8.5
Cincinnati	11	9.5	12	5	*12
Cleveland	11	9	11.5	5	*12
Columbus	11	9.5	12	5	*12
Dayton	11	9.5	12	5	*12
Marietta	11	9.5	12	5	*12
Portsmouth	11	10	13	5	*12
Toledo	11	9	11.5	5	*12
Youngstown	11	9.5	12	5	*11.5

Renown Gasoline
(Third Grade)

Ohio, Statewide	11	10	13	5	....
Akron	11	9	11	5	....
Cincinnati	11	9.5	12	5	....
Cleveland	11	9	11.5	5	....
Columbus	11	9.5	12	5	....
Dayton	11	9.5	12	5	....
Marietta	11	9.5	12	5	....
Portsmouth	11	10	13	5	....
Toledo	11	9	11.5	5	....
Youngstown	11	9.5	12	5	....

Note: Prices at other Ohio points may be obtained by writing NPN.

*Ohio has kerosine tax of 1c per gal., not included in above prices.

†This price also to authorized agents, exclusive of 0.5c rental.

‡Prices are at company-operated service stations.

Discount to undivided dealers: 0.5c less than divided dealer t.w.

S. O. Kentucky

Crown Gasoline
(*Regular Grade*)

	Consumer T.W.	Net Dlr.	Gasoline Taxes	Kerosine T.W.
Covington, Ky.	12	9	6	9.5
Lexington, Ky.	13.5	10.5	6	10
Louisville, Ky.	12.5	9.5	6	9
Paducah, Ky.	12.5	9.5	6	9
Jackson, Miss.	12.5	9.5	7	*9.5
Vicksburg, Miss.	12.5	9.5	7	*9
Birmingham, Ala.	13.5	10.5	*8	9
Mobile, Ala.	10.5	7.5	*9	8
Mongtomery, Ala.	13.5	10.5	*9	*10
Atlanta, Ga.	14	11	7	*7
Augusta, Ga.	13.5	10.5	7	*9
Macon, Ga.	12.5	9.5	7	*9.5
Savannah, Ga.	12.5	9.5	7	*8
Jacksonville, Fla.	12	9	8	8
Miami, Fla.	12	9	8	7
Pensacola, Fla.	12.5	9.5	*9	8.5
Tampa, Fla.	13	10	8	8.5

Kyso Gasoline
(*Third Grade*)

Covington, Ky.	10.5	8	6	....
Lexington, Ky.	12	9.5	6	....
Louisville, Ky.	10	7.5	6	....
Paducah, Ky.	10.5	8	6	....
Jackson, Miss.	11	8.5	7	....
Vicksburg, Miss.	11	8.5	7	....
Birmingham, Ala.	10.5	8	*8	....
Mobile, Ala.	8.5	6	*9	....
Montgomery, Ala.	11.5	9	*9	....
Atlanta, Ga.	10	7.5	7	....
Augusta, Ga.	12	9.5	7	....
Macon, Ga.	11	8.5	7	....
Savannah, Ga.	10.5	8	7	....
Jacksonville, Fla.	8	8	8	....
Miami, Fla.	10.5	8	8	....
Pensacola, Fla.	10.5	8	*9	....
Tampa, Fla.	11.5	9	8	....

Discounts to all tank wagon consumers at Tampa and St. Petersburg, Fla.: on Crown gasoline, 3c per gal. below consumer t.w. price; on Kyso, 2.5c below, regardless of quantity purchased, per month.

**Taxes*: In the tax column is included these city and county gasoline taxes at the following points: Mobile, 2c city; Birmingham, 1c city; Montgomery 1c city and 1c county; Pensacola, 1c city. Georgia and Montgomery, Ala. have kerosine taxes of 1c per gal., and Mississippi 0.5c, not included in above prices.

S. O. Indiana

Red Crown (*Regular Grade*)
Stanolind (*Third Grade*)
Red Dealer Prices

	Crown Cons. T.W.	Red Crown	Stanolind	Gasoline Taxes	Kerosine T.W.
Chicago, Ill.	11.1	9.1	6.9	4	10
Decatur, Ill.	11.1	8.1	6	4	8.5
Joliet, Ill.	11.1	9.6	7.4	4	10
Peoria, Ill.	11.1	8.7	8.1	4	10
Quincy, Ill.	10.9	9.4	8.5	4	9.8
Indianapolis, Ind.	11.8	9.3	8.4	5	*10
Evansville, Ind.	11.6	10.1	9.4	5	*10.5
South Bend, Ind.	11.8	10.3	7.3	5	*10
Detroit, Mich.	9.6	8.1	7.6	4	7.6
Grand Rapids, Mich.	9.9	7.7	7.2	4	9.7
Saginaw, Mich.	10.8	9.3	8.6	4	9.3
Green Bay, Wis.	11.9	10.4	9.9	5	10
Milwaukee, Wis.	11.3	9.8	9.3	5	10.2
La Crosse, Wis.	11.5	10	9.5	5	10.4
Minneapolis-St. Paul	11.5	10	9.5	5	10.4
Duluth, Minn.	11.9	10.4	9.9	5	10.8
Mankato, Minn.	11.5	10	9.5	5	10.4
Des Moines, Ia.	10.9	8.4	7.4	4	*9.8
Davenport, Ia.	11.1	9.6	7.5	4	*10
Mason City, Ia.	11.3	9.8	6.9	4	*10.2
St. Louis, Mo.	10.7	9.2	7.5	*4	8
Kansas City, Mo.	10.4	8.9	6.9	*4	8
St. Joseph, Mo.	10.4	8.0	7.5	4	7.9
Fargo, N. D.	12.7	11.2	10.7	5	11.6
Huron, S. D.	12	10.5	10	5	10.9
Wichita, Kans.	9.3	7.1	5.5	4	7.9

*Taxes: in the tax column is included these city and state gasoline taxes at following points: Kansas City, St. Joseph and St. Louis, 1c city tax. Kerosine taxes: Indiana has 4c, Iowa 3c per gal. state tax, not included in above prices.

S. O. Nebraska

Standard Red Crown Gasoline
(*Regular Grade*)

	T.W.	Dealer	Gasoline Taxes	Kerosine T.W.
Omaha, Neb.	10.5	7.5	6	9.8
McCook	10.5	7.9	6	9
Norfolk	10.5	8.4	6	9.5
North Platte	11.8	8.9	6	10
Scottsbluff	12.5	9.5	6	11.4

S. O. Louisiana

Esso
(*Regular Grade*)

	Consumer Tank Car	Dealer T.W.	Gasoline Taxes	Kerosine T.W.
Little Rock, Ark.	7.75	10.25	7.5	10
Alexandria, La.	7.25	9.75	8	*11.5
Baton Rouge, La.	7.25	9.75	8	*9.5
New Orleans, La.	7.25	9.75	8	*9
Lake Charles, La.	7.25	9.75	8	*11.5
Shreveport, La.	6	8.5	8	*10
Lafayette, La.	7.5	10	8	*10
Bristol, Tenn.	10.25	9.75	8	13
Chattanooga, Tenn.	9.5	12	8	12
Knoxville, Tenn.	10	12.5	8	13
Memphis, Tenn.	8	10.5	8	11
Nashville, Tenn.	9	9.5	8	11

*Taxes: Louisiana has kerosine tax of 1c per gal.; in addition New Orleans has 1c parish tax, none of which are included in above prices.

Price basis to dealers: Undivided dealers get dealer price, less 0.5c.

Above prices include these inspection fees on both gasoline and kerosine unless otherwise specified, per gallon, figured on basis of 50 gallons per barrel:
Alabama, 1/40c on gasoline, 1/2c on kerosine; Arkansas, 1/5c per gal. in a single barrel, 1/20c per gal. in bulk; Florida, 1/8c; Illinois, 3/100c; Indiana, 1/5c per gal. in lots up to 25 bbls.; 2/25c per gal. in lots of 25 bbls. or more; Kansas, 1/50c, (3/50c can be charged to meet inspection department expenses); Louisiana, 1/32c; Minnesota, 1/25c; Missouri, 3/100c; Nebraska, 3/100c; Nevada, gasoline, 1/20c; North Carolina, 1/4c; North Dakota, 1/20c; Oklahoma, 2/25c per gal. lots of more than 50, in bbls., 1/5c in lots less than 50 bbls.; South Carolina, 1/8c; South Dakota, 1/10c; Tennessee, 2/5c; and Wisconsin, 3/100c.
Kerosine inspection fee only: Iowa, 3/50c; Michigan, 1/5c per gal.

TANK WAGON MARKETS

Tank car, tank wagon, dealer, and service station prices for gasoline **do not include taxes;** *they do, however, include inspection fees as shown in general footnote. Gasoline taxes, shown in separate column, include 1c federal, and state taxes; also city and county taxes as indicated in footnotes. Kerosine tank wagon prices also do not include taxes; kerosine taxes, where levied, are indicated in footnotes. Dealer discounts are shown in footnotes; for commercial consumer discounts, see NPN for March 29, April 12, April 19 and June 7, 1939, or write to N.P.N. These prices in effect Jan. 8, 1940 as posted by principal marketing companies at their headquarters offices, but subject to later correction.*

Humble Oil & Refining Co.

Humble Motor Fuel
(Regular Grade)

	*T.W.	S.S.	Gasoline Taxes	Kerosine T.W.
Dallas, Tex	7	11	5	7
Ft. Worth, Tex	7	11	5	7
Houston, Tex	9	13	5	8
San Antonio, Tex	8	12	5	8

Thriftane
(Leaded, 67 Octane, Purple Gasoline)

Dallas	5.5	9	5	
Ft. Worth	5.5	9	5	
Houston	7.5	11	5	
San Antonio	7	10	5	

*These tank wagon prices apply to all classes of dealers and consumers.

Continental Oil

Conoco Bronz-z-z (Regular Grade)

	††T.W.	Dealer	Gasoline Taxes	Kerosine ‡T.W.
Denver, Col	10.5		5	11.5
Grand Junction, Col	12.5		5	15
Pueblo, Col	10		5	9
Casper, Wyo	12.5		5	11.5
Cheyenne, Wyo	10.5		5	13
Billings, Mont	12.5		6	13
Butte, Mont	14		6	15.5
Great Falls, Mont	13.5		6	15.5
Helena, Mont	14.5		6	15.5
Salt Lake City, Utah	10.5	10.5	5	16
Boise, Ida	**15.1	**15.1	6	18
Twin Falls, Ida	**15.1	**15.1	6	18
Albuquerque, N. M	10.5	10.5	†6.5	10
Roswell, N. M	9.5	9.5	†6.5	8
Santa Fe, N. M	10.5	10.5	*7	10
Ft. Smith, Ark	9.5		5	7.5
Little Rock, Ark	9.75		7.5	8
Texarkana, Ark	8		5	7
Muskogee, Okla	8	7	5	7
Oklahoma City, Okla	6		5	6.5
Tulsa, Okla	7	6	5	7

Demand Gasoline
(Third Grade)

Denver, Col	9.5		5	
Grand Junction, Col	11.5		5	
Pueblo, Col	9		5	
Casper, Wyo	11.5		5	
Cheyenne, Wyo	9.5		5	
Billings, Mont	11.5		6	
Butte, Mont	11		6	
Great Falls, Mont	11.5		6	
Helena, Mont	13.5		6	
Salt Lake City, Utah	9.5	9.5	5	
Boise, Ida	**14.1	**14.1	6	
Twin Falls, Ida	**14.1	**14.1	6	
Albuquerque, N. M	8.5	8.5	†6.5	
Roswell, N. M	8.5	8.5	†6.5	
Santa Fe, N. M	9.5	9.5	*7	
Ft. Smith, Ark	7		5	
Little Rock, Ark	7.5		7.5	
Texarkana, Ark	6		5	
Muskogee, Okla	7	6	5	
Oklahoma City, Okla	5.5		5	
Tulsa, Okla	6	5	5	

††Includes city tax of 0.5c.
*Includes 1c city tax.
‡Prices are in t.w. deliveries to consumers and dealers.
**Prices include 0.1c to cover 1-mill tax for toll bridges.
††T.w. prices in all states except Utah, Idaho and New Mexico are to consumers and dealers.

S. O. California

Standard Gasoline
(Regular Grade)

	T.W.	S.S.	Gasoline Taxes	Kerosine T.W.
San Francisco, Cal	13.5	14.5	4	11.5
Los Angeles, Cal	13	14	4	10
Fresno, Cal	14.5	15.5	4	12.5
Phoenix, Ariz	14	15	6	*12.5
Reno, Nev	15.5	16.5	5	13.5
Portland, Ore	14	15	6	13.5
Seattle, Wash	14	15	6	†13.5
Spokane, Wash	15.5	16.5	6	†16.5
Tacoma, Wash	14	15	6	†13.5

Flight Gasoline
(Third Grade)

San Francisco, Cal	12	13	4	
Los Angeles, Cal	11.5	12.5	4	
Fresno, Cal	13	14	4	
Reno, Nev	14	15	5	
Phoenix, Ariz	11	12	6	
Portland, Ore	12.5	13.5	6	
Seattle, Wash	12.5	13.5	6	
Spokane, Wash	13	14	6	
Tacoma, Wash	12.5	13.5	6	

*Arizona has kerosine tax of 5c per gal. not included in above prices.

†Washington has 0.25c per gal. tax on kerosine sales not included in above prices.

Discount to 100% dealers, thru territory, off posted t.w. prices, on gasolines: on Standard Ethyl, Standard Gasoline and Stanavo Aviation, 3c per gal.; on Flight gasoline, 2c.

Canada

PRICES OF IMPERIAL OIL LTD.
Per Imperial Gallon, which is 1.2 U. S. Gallons
3-Star Imperial Gasoline
(Regular Grade)

	T.W.	Gasoline Taxes	Kerosine T.W.
Hamilton, Ont	15.5	8	16
Toronto, Ont	15.5	8	16
Brandon, Man	21	7	22
Winnipeg, Man	19.5	7	20.5
Regina, Sask	18.5	7	20.5
Saskatoon, Sask	21	7	23
Edmonton, Alta	18.9	7	20.9
Calgary, Alta	16	7	18
Vancouver, B. C	16	7	23
Montreal, Que	15.5	8	16
St. John, N. B	14.5	10	18.5
Halifax, N. S	14.5	10	18.5

Discounts to undivided dealers, 1c off t.w. price, except Maritime Provinces where undivided dealers pay t.w. price. Divided dealers pay t.w. price, thru territory.

Aviation Gasoline

Following are tank car, tank wagon or dealer prices, as indicated, of aviation gasoline in several marketing territories.

S. O. OHIO
Thru Ohio

	Esso Aviation Consumer T.W.	Gasoline Taxes
74 octane	16	5
80 octane	17	5
87 octane	18	5

Discounts: For delivery on contract to hangar operators and resellers: 2c below consumer posted t.w. price, shown above.

S. O. INDIANA
Stanavo Aviation Gasoline
73 Octane Number

Chicago, Ill	14.9	
Detroit, Mich	16.5	4
Milwaukee, Wis	15.1	5
Minneapolis, Minn	15.3	5
St. Louis, Mo	14.5	3
Kansas City, Mo	14.2	*4
Fargo, N. D	16.5	5
Huron, S. D	15.8	5

*Includes 1c city tax.

HUMBLE OIL & REFINING CO.
74 Octane Aviation Gasoline, Clear

	Tank Car
FOB Baytown, Tex	8.5

CONTINENTAL OIL CO.
Conoco Special Gasoline

	T.W. & Dealer Price	Gasoline Taxes
Denver, Colo	15	5
Cheyenne, Wyo	15.5	5
Helena, Mont	22.5	6
Salt Lake City, Utah	18	5
Albuquerque, N. M	14	*6.5

*Includes city tax of 0.5c.

S. O. CALIFORNIA
Stanavo Aviation Gasoline

	T.W.	
Phoenix, Ariz	17.5	6
Los Angeles, Cal	15	4
San Francisco, Cal	15.5	4
Reno, Nev	17.5	5
Portland, Ore	16	6
Seattle, Wash	16	6
Spokane, Wash	19	6

Note: For discounts, etc., see note under Standard and Flight gasoline above.

Naphtha (In Tank Wagon)

S. O. NEW JERSEY
Posted Tank Wagon Prices

	Mineral Spirits	V.M.&P.
Newark, N. J	11.5	15.5
Baltimore, Md	15.5	
Washington, D. C	15	

Discounts: Buyers taking following quantities at one time, get these discounts. Newark, 2c per gal. on 200 gals. or more; less than 200 gals., 0.5c higher price. Baltimore 2c off on 25 to 100 gals. and 3c on over 100 gals. Washington, 2c off to contract buyers.

SOCONY-VACUUM OIL CO.

Buffalo, N. Y	11.5	12.5
*New York City	9.5	10.5
Rochester, N. Y	12.5	12.5
Syracuse, N. Y	12.5	15
Boston, Mass	11.5	11.5
Bridgeport, Conn	11.5	12
Hartford, Conn	11	11.5
Providence, R. I	11.5	12.5

*Prices apply to consumers only in quantities over 1,000 gals. annually. For quantities under 1,000 gals. annually, add 0.5c per gal.

ATLANTIC REFINING CO.

Philadelphia, Pa	12	14.5
Lancaster, Pa	13.5	16
Pittsburgh, Pa	14.5	14.5

Note: Prices for Mineral Spirits also apply to Stoddard Solvent; and prices for V.M.&P. Naphtha apply also to Light Cleaners Naphtha.

Discounts: Philadelphia, 200 gals. or more at one time, 2c per gal. less. Lancaster, contract buyers taking 1,000 gals. or more per year, one drum up, 2c per gal. less; non-contract buyers, 200 gals. or more at one time, 2c per gal. less. Pittsburgh, 500 gals. or more at one time, 2c.

S. O. OHIO

	S.R. Solvent	V.M.&P. Naphtha
Thru Ohio	12.5	13

Note: V.M.&P. naphtha prices also apply on Dry Cleaners naphtha, special Varnolene, Varnolene and Sohio Solvent. Discounts to contract [consumers off t.w. price: 300 to 999 gals., 0.5c; 1,000 to 2,499 gals., 0.75c; 2,500 to 4,999 gals., 1c; 5,000 or more gals., 1.5c.

S. O. INDIANA
(Prices include state and federal taxes)

	Oleum Spirits	V.M.&P. Naphtha	Stanisol
Chicago, Ill	16.7	17	16.4
Detroit, Mich	19.7	18.7	20.2
Kansas City, Mo	14.4	15.4	14.9
St. Louis, Mo	14.7	15.7	13.4
Milwaukee, Wis	19.3	20.3	19.8
Minneapolis, Minn	19.5	20.5	18.2

Note: All prices, with exception of Missouri points, include state tax. Prices shown are base prices, before discounts.

Naphtha (In Tank Cars)

In Tank Cars (F. o. b. refinery or seaboard terminal except Ohio, delivered price.)

	V.M.&P. Naphtha	Mineral Spirits
Baltimore	9.50	8.50
New York Harbor	9-9.5	8.75-9
Philadelphia district	10	8.25-9
Boston	9.5	9.5
Providence	9.5	9.5
†Ohio points, delivered	8.75	*8.25

*This is on rubber solvent.
†Ohio prices are those of S. O. Ohio. Its prices for D.C. naphtha, special Varnolene, Varnolene and Sohio Solvent are same as for V.M.&P.

Price Changes

Dates and amounts of changes. See table for full current prices.

Atlantic Refining—Atlantic White Flash:
Philadelphia t.c. cut 0.5c, Dec. 30.

Kerosine:
Worcester t.w. cut 0.6c, Dec. 29.

S. O. Kentucky—Kyso Gasoline:
Correction: Thru printer's error, prices for Birmingham and Mobile were transposed in Jan. 3 issue, page 37. Correct prices were: Birmingham t.w. 10.5c, dlr. 8c; and Mobile, t.w. 8.5c, dlr. 6c; notes published on page 38 were correct.
Jacksonville t.w. cut 2.5c, Dec. 19.

S. O. Indiana—Stanolind Gasoline:
Grand Rapids dlr. price cut 0.5c, Jan. 3.

Humble Oil & Refining—Kerosine:
Dallas t.w. cut 1c, Nov. 28.

Continental Oil—Conoco Bronz-z-z:
Grand Junction and Pueblo t.w. cut 1c, Jan. 3.
Salt Lake City t.w. and dlr. up 3c, Dec. 26.

Demand Gasoline:
Grand Junction and Pueblo cut 1c, Jan. 3.
Salt Lake City up 2c, Dec. 26.

Fuel Oil

S. O. New Jersey—Nos. 1, 2 *and* 4:
Atlantic City and Newark up 0.35c, Dec. 20.

Gulf

(*Continued from page* 37)

tempted to "locate" some No. 2 fuel to supplement his own production, but that he had been "unable to find any under 4 cents."

No cargo sales were reported during the first week of January.

California

LOS ANGELES, Jan. 5.—Right on the heels of several reports that Grade "C" fuel oil had been contracted from 10 to 15 cents below major companies' posted price schedules, a 15-cent reduction in the posted price of this type fuel was announced this week by Standard Oil Co. of California.

Following this reduction by Standard, the six other major California oil companies readjusted their price schedules to the same levels.

Effective Jan. 1 at all seaboard points on the Pacific, with the exception of San Diego, this drop in Los Angeles refinery markets showed heavy fuel at $0.75 a barrel, and light fuel at $0.85 a barrel, while San Francisco quotations were $0.80 and $0.90, respectively.

According to reports, major company posted bunker prices in the Pacific export market for Bunker "C" were $0.75, Los Angeles harbor; $0.80, San Francisco; $0.95, Portland, Oregon; and $1.055, Seattle. Cargoes were said to range between $0.70 and $0.75. Quotations by independents for Bunker "C" were reported to range between $0.725 and $0.75, with one reported as low as $0.70. Independent cargo prices were understood to be between $0.60 and $0.65.

Tanker Rates

Because tanker rates were not available in time for Jan. 3 issue, here are rates which were in effect Jan. 2:

Gulf-North Atlantic (not east of New York): heavy crude and fuel, 10-19.9 gravity, last paid, 53 cents; owners ask, 56 to 63 cents; light crude, 30 gravity or lighter, last paid, 47 cents; owners ask, 53 to 60 cents. Last paid rate for gasoline, 65 cents; kerosine, 68 cents; light fuel, 71 cents; owners ask, gasoline, 65 to 70 cents; kerosine, 68 to 73 cents; and light fuel, 71 to 76 cents.

Group 3 Freight Rates

To Division Headquarters Points of Standard Oil Co. of Indiana

	Gasoline-Kerosine Cents per Cwt.	Cents per gal. 6.6 lbs.	Distillate-Gas Oil-Fuel Oil Cents per Cwt.	Cents per gal. 7.4 lbs.
Chicago, Ill.	40	2.640	32	2.368
Decatur, Ill.	39	2.574	31	2.294
Joliet, Ill.	40	2.640	32	2.368
Peoria, Ill.	39	2.574	31	2.294
Quincy, Ill.	36	2.376	29	2.146
Indianapolis, Ind.	48	3.168	39	2.886
Evansville, Ind.	46	3.036	37	2.738
South Bend, Ind.	49	3.234	**42	**3.108
Detroit, Mich.	64	4.224	51	3.774
Gd. Rapids, Mich.	61	4.026	50	3.700
Saginaw, Mich.	66	4.356	53	3.922
Green Bay, Wis.	51	3.366	41	3.034
Milwaukee, Wis.	43	2.838	34.5	2.553
LaCrosse, Wis.	46	3.036	37	2.738
Min'ap'ls-St. Paul	46	3.036	37	2.738
Duluth, Minn.	52	3.432	41.5	3.071
Mankato, Minn.	46	3.036	37	2.738
Des Moines, Ia.	36	2.376	29	2.146
Davenport, Ia.	39	2.574	31	2.294
Mason City, Ia.	42	2.772	33.5	2.479
St. Louis, Mo.	33	2.178	26.5	1.961
Kansas City, Mo.	28	1.848	22.5	1.665
St. Joseph, Mo.	28	1.848	22.5	1.665
Fargo, N. D.	63	4.158	50.5	3.737
Minot, N. D.	83	5.478	66.5	4.921
Huron, S. D.	53	3.498	42.5	3.145
Wichita				
From Ponca City	7.5	*0.495	7.5	†0.555
From Tulsa	12.5	*0.825	12.5	†0.925
From Cushing	11	*0.726	11	†0.814

*This rate also includes distillate rate at 6.6 lbs. per gal.

**This rate applies only to residual fuel and gas oil. Combination rate of 32c per cwt. at 7.4, Group 3 to Chicago, plus 9c per cwt. at 6.6, Chicago to South Bend, total of 2.962c per gal., applies to petroleum fuel oil distillate not suitable for illuminating purposes.

†This rate is exclusive of distillate which is based on 6.6 lbs. per gal. from Ponca City, Tulsa and Cushing, Okla., to Wichita. Includes only gas oil and fuel oil.

NOTE: There is no Group 3 rate to Wichita, Kans.

Coming Meetings

Society of Automotive Engineers, Annual meeting and Engineering Display, Book-Cadillac Hotel, Detroit, Jan. 15 to 19.

Oil Trades Assn. of New York, Waldorf-Astoria Hotel, New York, Jan. 23.

Northwest Petroleum Assn., Annual Meetings: North Dakota Division, Gardner Hotel, Fargo, N. D., Jan. 22, 23; Minnesota Division, Nicollet Hotel, Minneapolis, Jan. 25, 26.

National Society of Professional Engineers, Fifth Annual Convention, Netherland-Plaza Hotel, Cincinnati, Ohio, Jan. 25-27.

American Road Builders, Exposition, International Amphitheatre, Stevens Hotel, Chicago, Ill., Jan. 29-Feb. 2.

South Dakota Independent Oil Men's Assn., annual convention, Mitchell, South Dakota, Feb. 6, 7.

American Institute of Mining and Metallurgical Engineers, New York, Feb. 12 to 15.

Kentucky Petroleum Marketers Assn., 14th annual meeting and convention, Brown Hotel, Louisville, Ky., Feb. 14, 15.

Assn. of Highway Officials of North Atlantic States, Hotel Ambassador, Atlantic City, N. J., Feb. 14-16.

Missouri Independent Oil Jobbers Assn., Annual Convention, Elms Hotel, Excelsior Springs, Mo., Feb. 21 and 22.

National Dixie Distributors, Milwaukee, Wis., Feb. 21, 22.

Wisconsin Petroleum Assn., annual meeting and equipment show, Schroeder Hotel, Milwaukee, Feb. 21, 22, 23.

Ohio Petroleum Marketers Assn., Deshler-Wallick Hotel, Columbus, O., Feb. 27, 28 and 29.

Illinois Petroleum Marketers Assn., annual convention, Hotel Pere Marquette, Peoria, Ill., Feb. 27-29.

Iowa Independent Oil Jobbers' Assn., annual meeting, Hotel Fort Des Moines, Des Moines, March 5-7.

American Society for Testing Materials, Statler Hotel, Detroit, Mich., March 4-8.

American Petroleum Institute, Mid-Continent District, Division of Production, Wichita, Kan., March 14, 15.

Society of Automotive Engineers, National Aeronautic Meeting, Washington Hotel, Washington, D. C., March 14-15.

American Petroleum Institute, Southwestern District, Division of Production, Houston, Tex., March 28, 29.

Western Petroleum Refiners Assn., Annual Meeting, Allis Hotel, Wichita, Kans., Mar. 31, Apr. 1, 2.

Society of Automotive Engineers, National Transportation & Maintenance Meeting, Mellon Institute Auditorium, Pittsburgh, Pa., March 28-29.

American Chemical Society, Cincinnati, Ohio, April 8-12.

American Assn. of Petroleum Geologists, Stevens Hotel, Chicago, April 10, 11, 12.

American Petroleum Institute, Eastern District, Division of Production, Columbus, O., April 11, 12.

National Petroleum Assn., 37th semi-annual meeting, Hotel Cleveland, Cleveland, O., April 18, 19.

American Institute of Mining & Metallurgical Engineers, Open Hearth Conference, Pittsburgh, Pa., April 24-26.

Pennsylvania State College, 9th Petroleum and Natural Gas Conference, State College, Pa., April 26-27.

Petroleum Industry Electrical Assn., Dallas, Tex., May 1 to 3.

American Institute of Chemical Engineers 32nd Semi-Annual Meeting, Statler Hotel, Buffalo, N. Y., May 13, 14 and 15.

Natural Gasoline Assn. of America, 19th annual convention, Hotel Tulsa, Tulsa, May 15, 16, 17.

International Petroleum Exposition and Congress, Tulsa, May 18-25.

American Petroleum Institute, 105th Mid-Year Meeting, Blackstone & Texas Hotels, Fort Worth, Tex., May 27-31.

Society of Automotive Engineers, Summer Meeting, The Greenbrier, White Sulphur Springs, W. Va., June 9-14.

American Society for Testing Materials, Chalfonte-Haddon Hall, Atlantic City, N. J., June 24-28.

TANK WAGON MARKETS, HEATING OILS

Prices in Effect Jan. 8, 1940

Following are posted tank wagon prices of various grades of heating oil at the points shown in various territories. Prices are in cents per gallon.

S. O. NEW JERSEY

	No. 1	No. 2	No. 4
Atlantic City, N. J.	8 1	7 1	7 1
Newark	8 1	7 1	7 1
Annapolis, Md		7 00	
Baltimore	7 50	7 00	6 50
Washington, D. C.	7 75	7 25	7 25
Norfolk, Va.	7 5	6 5	6 5
Petersburg	7 75	6 75	
Richmond	7 75	6 75	6 75
Charlotte, N. C.	9	7 75	
Hickory		8 25	
Raleigh	9	7 5	
Charleston, S. C.	8 25	6 75	
Columbia	9 25	7 75	
Spartanburg	9 95	8 45	

SOCONY-VACUUM OIL CO. INC.
(S. O. New York Division)

	Nos. 2 & 3	No. 4
New York City	7 00	7 00
Albany, N. Y.	7 20	6 70
Rochester, N. Y.	7 50	7 50
Boston, Mass.	7 20	7 20
Bangor, Me.	7 60	7 60
Manchester, N. H.	7 00	7 00
Burlington, Vt.	7 90	7 90
Hartford, Conn.	7 30	7 30
New Haven, Conn.	7 20	7 20
Providence, R. I.	7 20	7 20

Note: Prices for No. 1 fuel in Socony-Vacuum territory same as for kerosine which see in tank wagon table for various cities; prices change with kerosine.

ATLANTIC REFINING

	Numbers 1	2	3	4	5	6
Phila., Pa.	8	7 00	7 00	7 00	4 25	3 50
Allentown, Pa.	8 5	7 00	7 00	7 00		
Wilmington, Del.	7 75	7 00	7 00	7 00		
Springfield, Mass.	9 0	7 7				
Worcester, Mass.	9 0	7 5		7 5		
Hartford, Conn.	8 5	7 3		7 3		

S. O. OHIO

	No. 1	No. 2	No. 3
Columbus Division and Cleveland	7 50	7 50	7 00
City of Lima	8 00	8 00	7 00
Rest of Ohio	8 00	8 00	7 50

Note: S. O. Ohio prices are for full compartment hose dumps, bucket dumps are 0.5c per gallon higher.

S. O. INDIANA
Stanolex Fuel and Furnace Oils

	No. 1 Fuel	Stanolex Furnace
Chicago	(a)6 75	6 75
Indianapolis		(b)7 8
Detroit		6 6
Milwaukee	8 4	7 7
Minneapolis	7 8	7 8
St. Louis	7 7	(c 6 7
Kansas City	6 8	6 8

(a) For 490 gals. and over; 150 to 399 gals., 7.25c; 1 to 149 gals., 8.25c.

(b) Excluding 1c state tax.

(c) For 400 gals. & over; 100 to 399 gals., 7c; 1 to 99 gals., 8c.

Note: Small-lot deliveries of light fuel oils range up to 2c higher than above quotations.

SEABOARD MARKETS, EXPORT AND COASTWISE

All prices on this page are publisher's opinion of open market quotations or sales for spot shipment (10 to 15 days). In cargo markets, spot shipment is 90 days. Prices in cents per gallon, except heavy fuel oil in dollars per barrel, in tank car lots, f.o.b. refineries or seaboard terminals in districts designated, unless otherwise noted. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude. Unless otherwise noted, gasoline octane ratings are determined by C.F.R. Motor method, A.S.T.M. D-357-33T; and lubricating oil specifications determined according to A.S.T.M. methods, unless otherwise noted.

Atlantic Coast Refiners' & Tanker Terminal Operators' Quotations (FOB Refineries & Terminals)

MOTOR GASOLINE—Prices Effective Jan. 8

District:	60-64 Oct.	65 Oct.	65 Oct. & Above	68-70 Oct.	72-74 Oct.
N. Y. harbor	(m)6.70	6.50 – 7.30	6.50 – 7.30	(r) 6.50 –6.75	6.50 – 7.70
(a) N. Y. harbor	(m)6.70	6.40 – 7.05	6.40 – 7.05	(r) 6.40 –6.50	6.40 – 7.20
Philadelphia	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75	6.50 – 6.75	6.50 – 8.00
Baltimore	6.25 – 6.75	6.50 – 7.00	6.50 – 7.00	6.50 – 6.75	6.50 – 7.75
Norfolk	(r) 6.625–6.875	(r)6.75 –7.00	(r) 6.75 –7.00	6.75 – 7.25	7.00 – 7.75
Wilm'ton	6.50 – 6.875	(r)6.75 –7.00	(r) 6.75 –7.00	6.75 – 7.25	7.00 – 7.85
Char'ston	6.625– 6.875	(r)6.75 –7.00	(r) 6.75 –7.00	(r) 7.00 –7.25	(r) 7.50 –7.55
Savannah	6.50 – 7.125	(r)6.75 –7.00	6.75 – 7.00	6.75 – 7.50	7.00 – 7.25
Jacksonville	6.50 – 6.875	(r)6.75 –7.00	(r) 6.75 –7.00	(r) 6.75 –7.25	7.00 – 7.25
Miami	(r) 6.625–6.875	(m)7.00	(m)7.00	(m)7.00 –7.25	(m)7.25
Tampa	(r) 6.50 –6.875	(m)7.00	(m)7.00	(m)7.00 –7.25	(r)7.25
Pensacola	(m)6.625–6.875	.....	.....	(m)7.00 –7.25	.....
Mobile	6.00 – 6.50	(m)6.50	(m)6.50	(m)6.75 –7.00	(r)6.75
Portland	.....	(m)7.50	(r)7.50	.....	7.50 – 7.60
Boston	6.50 – 7.25	6.75 – 7.15	6.75 – 7.15	(r) 6.75 –7.00	6.75 – 7.50
Providence	6.80 – 7.25	(r)7.00 –7.15	7.00 – 7.15	(m)7.00	7.00 – 7.50

WATER WHITE KEROSINE

District:			
N. Y. harbor	5.60 –5.75	Jacksonville	(r)5.25-5.50
(a) N. Y. harb.	5.50 –5.625	Miami	5.25-5.375
Phila	5.50 –5.625	Tampa	(m)5.25-5.50
Baltimore	5.25 –5.50	Pensacola	(r)5.25-5.375
Norfolk	5.50 –5.625	Mobile	(m)5.125-5.375
Wilm'ton, N.C.	5.25 –5.625	Portland	5.90 –6.00
Charleston	5.50 –5.625	Boston	5.70 –5.75
Savannah	5.25 – 5.625	Providence	5.70 –5.75

FUEL OILS

	N. Y. harb.	N. Y. harb. barges
No. 1	5.60 – 5.75	5.50 – 5.625
Nos. 2-3	5.10 – 5.375	5.00 – 5.25
No. 4	5.10 – 5.375	5.00 – 5.25
No. 5	$1.70 –$1.80	.....
No. 6	(u) $1.15–$1.50	.....

	Phila. dist.	Balt. dist.
No. 1	5.50 – 5.625	5.25 – 5.50
Nos. 2-3	4.75 – 5.375	4.75 – 5.25
No. 4	4.50 – 5.375	4.50 – 5.25
No. 5	$1.46 –$1.80	$1.47 –$1.70
No. 6	(u) $1.15–$1.50	(u) $1.25 $1.50

	Bost. dist.	Prov. dist.
No. 1	5.70 – 5.75	5.70 – 5.75
Nos. 2-3	5.125– 5.50	5.125– 5.50
No. 4	5.125– 5.50	5.125– 5.50
No. 5	$1.70 –$1.80	$1.75 –$1.80
No. 6	(u)$1.50	(u)$1.15 –$1.50

District:	(c&u) Bunker C Fuel	(c) Diesel Oil
N. Y. harbor	$1.15 –$1.50	$2.10 –$2.20
Philadelphia	$1.15 –$1.50	$2.10 –$2.20
Baltimore	$1.50	$2.10
Norfolk	$1.15 –$1.50	$2.10 –$2.20
Charleston	$1.10 –$1.45	$1.90 –$2.20
Savannah	$1.45	$1.995
Jacksonville	$1.10 –$1.45	$1.995–$2.10
Tampa	$1.05 –$1.40	$1.995–$2.10
Portland	$1.50 –$1.70	$2.20
Boston	$1.50	$2.10 –$2.20
Providence	$1.15 –$1.50	$2.10 –$2.20

	Diesel Oil Shore Plants	Gas House Gas Oil 28-34 Gravity
N. Y. harbor	5.10	5.20
Philadelphia	5.00	.....
Baltimore	5.00	5.00
Norfolk	5.00	5.00
Charleston	5.00	.....
Jacksonville	4.75	.....
Tampa	4.75	.....
Portland	5.40	5.50
Boston	5.20	5.30
Providence	5.20	5.30

Pacific Export

(c) (Quotations at seaboard, Los Angeles, cargo lots cents per gal., except where otherwise noted.)

Prices Effective	Jan. 8	Jan. 2
U. S. Motor, under 65 octane	5.75 – 6.00	5.75 – 6.00
400 e.p. blend, 65 oct. min.	6.00 – 6.25	6.00 – 6.25
390 e.p. blend, 66 oct.	6.125– 6.375	6.125– 6.375
390 e.p. blend, 68 oct.	6.25 – 6.50	6.25 – 6.50
375 e.p. blend, 70 oct.	6.375– 6.75	6.375– 6.75
(d) 38-40 gravity, w.w. kerosine	4.25 – 5.00	4.25 – 5.00
41-43 grav., w.w. kero.	4.50 – 5.00	4.50 – 5.00
44 grav., w.w. kero	5.00 – 5.50	5.00 – 5.50
Cargo lots, per bbl.		
Diesel fuel, 24 & above	$1.25 –$1.35	$1.25 –$1.35
Diesel fuel, under 24	$1.15 –$1.25	$1.15 –$1.25
(f) 30-34 grav., diesel (gas oil)	$1.25 –$1.35	$1.25 –$1.35
(g) Grade C fuel	$0.68 –$0.73	$0.68 –$0.73

Prices Effective	Jan. 8	Jan. 2
In Ships' Bunkers, or deep tank lots, per bbl.:		
(f) Diesel fuel	$1.35 –$1.45	$1.35 –$1.45
(g) Grade C fuel	$0.70 –$0.75	$0.85 –$0.90
Cased Goods: (Per case)		
U. S. M.	$1.45 –$1.55	$1.45 –$1.55
400 e.p. blend, under 65 oct.	$1.50 –$1.60	$1.50 –$1.60
375-400 e.p. blend, 65 oct. & above	$1.60 –$1.70	$1.60 –$1.70
(d) 40-43 grav., w.w. kero	$1.40 –$1.50	$1.40 –$1.50
Kero., p.w.	$1.35 –$1.45	$1.35 –$1.45

New York Export Quotations

(Cents per gal. in bbls. FAS New York)

CYLINDER OILS (Penna. Products)

Bright stock:		
Light, 25 p.t.	(p) 39.00–43.00	(p) 39.00–42.00
Neutral oil:		
200 3 color, 25 p.t.	(n)39.00	(n)39.00
150 3 color, 25 p.t.	(p) 37.00–39.50	(p)37.00–39.50
600 s.r., unfilt.	(p) 23.00–27.00	(p)23.00–27.00
650 s.r., unfilt.	(p) 25.00–30.00	(p)25.00–30.00
600 fl. s.r.	(p) 26.50–31.50	(p)26.50–31.50
630 fl., s.r.	(p) 31.50–36.00	(p)31.50–36.00

Seaboard Wax Quotations

(A.S.T.M. Tests. Melting points, however, are A.M.P., 3° higher than E.M.P. Export prices, FAS. c.l. Domestic prices, FOB. refr'ies., in bags, c.l., with 0.2c discount allowed for shipment in bulk, except where noted. Scale solid; fully refined slabs in bags)

Prices Effective	Jan. 8	
	New York Domestic	New York Export
124-6 Y.C. scale	.....	(n) 6.75 –7.00
122-4 W.C. scale	.....	.....
124-6 W.C. scale	.....	(n) 6.75 –7.00
123-5 Fully rfd.	6.10 – 6.40	.....
125-7 Fully rfd	(p)6.10 –6.55	(n)7.50
128-30 Fully rfd	(h)6.20 –6.75	(n)7.75
130-2 Fully rfd	(h&p)6.35-7.00	(n)8.00
133-5 Fully rfd	(p)6.65 –7.30	(n)8.50
135-7 Fully rfd	(h&p)6.90-7.55	(n)9.00
108-111 white Match wax	.....	(n&t)8.00
		New Orleans Export
124-6 Y.C. scale	.....	(n) 6.75 –7.00
122-4 W.C. scale	.....	.....
124-6 W.C. scale	.....	(p)6.75 –7.00
123-5 Fully rfd	.....	.....
125-7 Fully rfd	.....	(n)7.50
128-30 Fully rfd	.....	(n)7.75
130-2 Fully rfd	.....	(n)8.00
133-5 Fully rfd	.....	(n)8.50

Gulf Coast Bulk

(FOB ship at Gulf for domestic and export; min. 20,000 bbls.)

Prices quoted by individual GCRA refiners on their products meeting GCRA specifications follow:

	Jan. 8
GCRA Spec. Motor Fuels	
65 octane (CFR) unleaded	6.00
68 octane (CFR) unleaded	(p)6.00 –6.25
70 octane (CFR) unleaded	(p)6.00 –6.25
72-74 octane (CFR) unleaded	.....
72-74 octane (CFR) leaded	6.125– 6.25
GCRA Spec. Kerosine & Gas Oils	
Kerosine	4.25 – 4.375
43 or below diesel index gas oil	(n)4.00
43-47 diesel index gas oil	(p) 4.00–4.125
48-52 diesel index gas oil	4.25
53-57 diesel index gas oil	(p)4.375
58 & above	(p)4.50

Prices quoted by refiners for other products follow:

MOTOR GASOLINE

	Jan. 8		
	60-62 Gravity, 400 e.p.	61-63 Gravity, 390 e.p.	64-66 Gravity, 375 e.p.
60 oct. unleaded	5.25-5.75	(p)5.25-5.625	(p)5.375-5.75
65 oct. unleaded	5.50-6.00	(p)5.50-5.875	(p)5.625-6.00
68 oct. unleaded	6.00-6.25	(p)6.00-6.125	(p)6.00-6.25
70 oct. unleaded	(p)6.125-6.25	(n)6.25	(n)6.375
72-74 oct. leaded	5.875-6.25	(n)6.00	(n)6.00

KEROSINE

	Jan. 8	Jan. 2
41-43 grav. w.w.	4.25 – 4.50	4.25 – 4.625

GAS OILS

Gas Oil (i):		
Below 43 diesel index	(n)4.00	(n)4.00
43-47 diesel index	(n)4.125	(n)4.125
48-52 diesel index	4.00 – 4.25	4.25 – 4.375
53-57 diesel index	(p)4.375	(p)4.375–4.50
58 & above	(n)4.50	(n)4.50

LIGHT FUEL OILS

No. 2	(p) 4.00 –4.125	4.00 – 4.125

DIESEL and BUNKER OILS

(c) Diesel Oil	$1.70	$1.70
(c) Grade C bunker oil	$0.90 –$1.00	$0.90 –$1.00
Grade C bunker oil, cargoes	$0.95 –$1.00	$0.95 –$1.00

MID-CONTINENT LUBES

(Cents per gal. at Gulf; in packages, FAS.; in bulk FOB terminals)

	Jan. 8	
	(v) Packages	Bulk
910 vis. D. 210 brt. stock	(n)35.50	(n)29.80
200 vis. E 210 brt. stock	(n)34.50	(n)28.80
150 vis. D 210 brt. stock 0-10 p.p.	(p) 32.50–36.00	(p) 26.80–29.00
15-25 p.p.	(p) 31.50–35.00	(p) 25.80–28.00
150 vis. E 210 brt. stock	(n)31.50	(n)25.80
100 vis. D 210 brt. stock 0-10 p.p.	(n)31.50	(n)25.80
15-25 p.p.	(n)30.50	(n)24.80
200 vis. No. 3 col. neutral:		
0-10 p.p.	(n)22.00	(n)16.30
15-25 p.p.	(n)21.50	(n)15.80
180 vis. No. 3 col. neutral:		
0-10 p.p.	(n)21.50	(n)15.80
15-25 p.p.	(n)21.00	(n)15.30

SOUTH TEXAS LUBES

(Vis. at 100° cold test 0, bulk export shipment, FOB terminals.)

Unfiltered Pale Oils:	Jan. 8	Jan. 2
Vis. Color		
100 No. 3	6.00 – 6.50	6.00 – 6.50
200 No. 3	7.50 – 8.50	7.50 – 8.50
300 No. 3	8.00 – 9.00	8.00 – 9.00
500 No. 3½	9.00 –10.50	9.00 –10.50
750 No. 4	9.50 –11.00	9.50 –11.00
1200 No. 4	10.00 –13.50	10.00 –13.50
2000 No. 4	10.25	10.25
Red Oils:		
Vis. Color		
100 No. 5-6	6.00 – 6.50	6.00 – 6.50
200 No. 5-6	7.50 – 8.50	7.50 – 8.50
300 No. 5-6	8.00 – 9.00	8.00 – 9.00
500 No. 5-6	9.00 –10.50	9.00 –10.50
750 No. 5-6	9.50 –11.00	9.50 –11.00
1200 No. 5-6	10.00 –13.50	10.00 –13.50
2000 No. 5-6	10.25	10.25

Tanker Rates

(Approximate freight rates. To Continental ports, shillings per ton of 2240 lbs., British sterling; to U. S. ports cents per bbl.)

	Crude & /or Fuel		Refined Oil & / or Spirits	
	Last Paid	Owners Ask	Last Paid	Owners Ask
Gulf-U.K. /Cont.(k)	....	....	....	....
Aruba-U.K. /Cont.	....	....	....	....
Gulf-N. Atlantic(l) (not E. of N.Y.): Hvy. Crude & fuel, (10 to 19.9 gravity)	....	....	....	....
Light Crude, (30 Grav. or Lighter)	....	....	....	....
Gasoline	....	....	....	....
Kerosine	....	....	....	....
Light Fuel	....	....	....	....

(a) In barge lots. (c) Ships' bunkers. Lighterage, additional at some points, not included. (d) 150 fire point. (e) For San Francisco cargo prices, add 5c per bbl. to cargo prices shown above. (f) Pacific Specification 200. (g) Pacific Specification 400. (h) Shipment in bags or in bulk. (i) Less than ½ of 1% sulfur. (j) Second-hand barrels. (k) Continental ports in range between Bordeaux and Hamburg, both inclusive. (l) Venezuela loading, same rate: Tampico, 2c to 3c per bbl. additional. (m) One supplier quoting. (n) One refiner quoting. (o) No quotations reported. (p) Two refiners quoting. (q) No rates reported. (r) Two suppliers quoting. (s) Sale. (t) Shipment in tight barrels. (u) Companies report prices are posted prices, or for very limited sale, this restriction applying to prices of six companies at tops of price ranges as well as to prices of one company at lows of price ranges. (v) New steel drums.

CRUDE OIL MARKETS

Prices in $ per bbl. of 42 U. S. gals. at the well. A. P. I. gravity. Prices are effective as of 7 a. m. of dates as given

EASTERN FIELDS

Posted by Joseph Seep Purchasing Agency
(Effective Jan. 1, 1940, except Corning Nov. 4, 1939)

Penna. Grade Oil in Southwest Penna. Pipe Lines $2.40
Penna. Grade Oil in Eureka Pipe Lines (West Virginia) $2.34
Corning Oil in Buckeye Pipe Lines (Ohio) $1.12

Posted by Other Companies

Tide Water Associated Oil Co.
Bradford-Allegany district (Penna. and N. Y.) (Effective Jan. 1, 1940) $2.75
*The Pennzoil Co.: (Effective Jan. 1, 1940)
Penna. Grade Oil in National Transit Lines*$2.68
*The Pennzoil Co. posts $2.68 in Cochran, Franklin, Hamilton and Doolittle, Pa. fields, prices in other lower districts range down to $2.63 per bbl. at well.

MICHIGAN

Posted by Pure Oil Co.
(Effective Oct. 9, 1939)

Midland, Midland County $1.02
Sherman $0.97
Clare-Freeman $0.97

Posted by Simrall Corp.
(Effective Oct. 9, 1939)

Crystal, Greendale, Porter, Vernon and Wise $1.02
Beaverton, Buckeye, Bentley, Edenville $1.00
Freeman and Redding $0.97
Arenac $0.82
(Effective Nov. 1, 1939)
West Branch $0.85

Posted by Sohio Corp. (Michigan Division)
(Effective Oct. 9, 1939)
Allegan and Kent Counties $1.03
(Effective Nov. 9, 1939)
Van Buren County $1.03

Posted by Bay Pipe Line Corp.
(Effective Oct. 9, 1939)
Bentley and Buckeye $1.00
Saginaw and Wise $1.02
Clare $0.76

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.
(Effective June 8, 1939)
Illinois and Western Indiana $0.95
Illinois Basin $1.05

Posted by Sohio Corp.
Illinois Basin:
(Effective Oct. 21, 1939)
Salem (Lake Centralia) $1.05
(Effective June 8, 1939)
Balance of Illinois Basin $1.05
(Effective Oct. 10, 1939)
Griffin (Ind.) pool, sand wells $0.95
Griffin (Ind.) pool, McCloskey lime $0.85

Posted by Carter Oil Co.
(Effective June 10, 1939)
Louden, Fayette County, Ill. $1.05

Posted by Ashland Oil & Transportation Co.
(Effective June 9, 1939)
Somerset Oil in Ashland Lines, Kentucky:
Big Sandy River ... $1.02 Kentucky River ... $1.10

Western Kentucky

Posted by Sohio Corp.
(Effective June 9, 1939)
Birk City Area $0.90

Posted by Owensboro-Ashland Co.
Owensboro Area $1.00
Corydon Area (Henderson) $0.90

CANADIAN FIELDS

Posted by Imperial Oil Limited
Western Ontario
(Effective Nov. 6, 1939)
Petrolia ..... $2.10 Oil Springs $2.17

Alberta Turner Valley
(Prices f.o.b. field tankage)
(Effective Jan. 5, 1938)

Crude Oil			
40-40.9°	$1.14	53-53.9	$1.40
41-41.9	1.16	54-54.9	1.42
42-42.9	1.18	55-55.9	1.44
43-43.9	1.20	56-56.9	1.46
44-44.9	1.22	57-57.9	1.48
45-45.9	1.24	58-58.9	1.50
46-46.9	1.26	59-59.9	1.52
47-47.9	1.28	60-60.9	1.54
48-48.9	1.30	61-61.9	1.56
49-49.9	1.32	62-62.9	1.58
50-50.9	1.34	63-63.9	1.60
51-51.9	1.36	64-64.9	1.62
52-52.9	1.38		

Crude Naphtha, 65 grav. & above $2.14

Absorption Gasoline

90% Rec., 20 lb. Reid v.p. $1.94
90% Rec., 17 lb. Reid v.p. $2.08

MID-CONTINENT—Oklahoma-Kansas

*(For effective dates, see footnote)

	S. O. Indiana	Carter Mag-nolia Shell	Conti-nental Texas Co.	Sin-clair Prairie
Below 21°	$0.70	$0.60	....	....
21-21.9	.72	.63	....	....
22-22.9	.74	.66	....	....
23-23.9	.76	.69	....	....
24-24.9	.78	.72	....	....
25-25.9	.80	.75	....	$0.58
26-26.9	.82	.78	....	.63
27-27.9	.84	.81	....	.68
28-28.9	.86	.84	$0.86	.73
29-29.9	.88	.87	.88	.78
30-30.9	.90	.90	.90	.82
31-31.9	.92	.92	.92	.86
32-32.9	.94	.94	.94	.90
33-33.9	.96	.96	.96	.96
34-34.9	.98	.98	.98	.98
35-35.9	1.00	1.00	1.00	1.00
36-36.9	1.02	1.02	1.02	1.02
37-37.9	1.04	1.04	1.04	1.04
38-38.9	1.06	1.06	1.06	1.06
39-39.9	1.08	1.08	1.08	1.08
40 & above	1.10	1.10	1.10	1.10

*Effective in 1938 by Carter Oil, Oct. 13, posting in Okla. only: Continental Oil, Oct. 11, with lowest grade below 29; Magnolia, Oct. 12, posting in Okla. only; Shell, Oct. 22; S. O. Indiana, Oct. 17; The Texas Co., Oct. 12. Aug. 31, 1939, by Sinclair-Prairie.

North-North Central and Central Texas
*(For effective dates, see footnote)

	Stano-lind	Sinclair Texas Co. Conti-nental Magnolia
Below 21°	$0.60	....
21-21.9	.62	....
22-22.9	.64	....
23-23.9	.66	....
24-24.9	.68	$0.79
25-25.9	.70	for
26-26.9	.72	oil
27-27.9	.74	below
28-28.9	.76	29°.
29-29.9	.78	.81
30-30.9	.80	.83
31-31.9	.82	.85
32-32.9	.84	.87
33-33.9	.86	.89
34-34.9	.88	.91
35-35.9	.90	.93
36-36.9	.92	.95
37-37.9	.94	.97
38-38.9	.96	.99
39-39.9	.98	1.01
40 & above	1.00	1.03

*Effective Oct. 11, 1938 by Continental, in North Tex.; Oct. 12, 1938, by Texas Co. in North & North Central Texas. Texas Co.'s lowest grade is 28-28.9, at $0.79; by Magnolia, Dec. 3, 1938, in N. and N. Central Texas; Oct. 5, 1939 by Sinclair Prairie in Mexia and N. Cent. Texas.

Jefferson County, Texas—Beaumont

(Posted by Magnolia Petroleum Co., Effective Oct. 2, 1939, and by Stanolind Oil & Gas Co., for West Beaumont, Effective Oct. 2, 1939)

Below 20°	$0.86	30-30.9	$1.08
20-20.9	.88	31-31.9	1.10
21-21.9	.90	32-32.9	1.12
22-22.9	.92	33-33.9	1.14
23-23.9	.94	34-34.9	1.16
24-24.9	.96	35-35.9	1.18
25-25.9	.98	36-36.9	1.20
26-26.9	1.00	37-37.9	1.22
27-27.9	1.02	38-38.9	1.24
28-28.9	1.04	39-39.9	1.26
29-29.9	1.06	40 & above	1.28

TEXAS FIELDS

Posted by Humble Oil & Refining Co.
**West Central Texas*
(Effective Aug. 11, 1939)

24-24.9	$0.71	33-33.9	$0.89
25-25.9	.73	34-34.9	.91
26-26.9	.75	35-35.9	.93
27-27.9	.77	36-36.9	.95
28-28.9	.79	37-37.9	.97
29-29.9	.81	38-38.9	.99
30-30.9	.83	39-39.9	1.01
31-31.9	.85	40 & above	1.03
32-32.9	.87		

*Includes Brown, Callahan, Coleman, Comanche, Eastland, Fisher, Haskell, Jones, Shackelford, Stephens, Throckmorton and Young Counties.

Effective Aug. 29, 1939, Shell posted in Fisher county, Tex., prices 3c lower than Humble's West Central Texas prices; Shell's schedule begins with below 25, at $0.68 and ends with 40 & above, at $1.

Note: Effective Oct. 1, 1937, Humble prices are based on 100% tank tables at 60F.

**East Central Texas*
(Effective Aug. 11, 1939)

3-23.9	$0.78	32-32.9	$0.96
24-24.9	.80	33-33.9	.98
25-25.9	.82	34-34.9	1.00
26-26.9	.84	35-35.9	1.02
27-27.9	.86	36-36.9	1.04
28-28.9	.88	37-37.9	1.06
29-29.9	.90	38-38.9	1.08
30-30.9	.92	39-39.9	1.10
31-31.9	.94	40 and above	1.12

Posted by Pan American Pipe Line Co.
(Effective Oct. 2, 1939)
Cayuga, Anderson county $0.78
*Including Anderson, Cherokee, Limestone, Navarro counties.

PANHANDLE TEXAS

	Humble (Aug. 11, 1939)		Texas Co. (Oct. 2, 1939)	
	Gray County	Carson Hutchin-son	Sweet	Sour
28-28.9	$0.72	$0.67	....	....
29-29.9	.74	.69	....	....
30-30.9	.76	.71	....	....
31-31.9	.78	.73	....	....
32-32.9	.80	.75	....	....
33-33.9	.82	.77	....	....
34-34.9	.84	.79	$0.84	$0.79
35-35.9	.86	.81	.86	.81
36-36.9	.88	.83	.88	.83
37-37.9	.90	.85	.90	.85
38-38.9	.92	.87	.92	.87
39-39.9	.94	.89	.94	.89
40 & above	.96	.91	.96	.91

Effective Aug. 31, 1939, Sinclair Prairie met Humble in Panhandle Texas. Dec. 3, 1938, Magnolia posted same schedule as Humble.

*EAST TEXAS

By Humble, Shell, Sinclair-Prairie, Stanolind, Gulf, Magnolia, Texas Co., Tide Water-Associated $1.10

*Effective dates: Aug. 11, 1939, by Humble and Tide Water-Associated; Aug. 29, 1939, by Stanolind; Oct. 2, 1939 by Sinclair Prairie; Oct. 5, 1939 by Shell; Oct. 12, 1938, by Magnolia, Texas Co.; Oct. 13, 1938, by Gulf.

*Includes Cherokee, Gregg, Rusk, Smith and Upshur counties.

Posted by Shell Oil Co., Inc.
(Effective Oct. 5, 1939)
Polk County, Tex. (Livingston and Schwab-Wilcox areas) $1.10

NORTHEAST TEXAS

(Posted by Humble, Oct. 2, 1939)
Talco $0.65

(Posted by Magnolia, Oct. 12, 1938)
Cass County and Panola County, Tex.:
Magnolia posts below 25° at $0.73, plus 2c differential for each degree, to top grade of 40 & above, at $1.05.

(Posted by The Texas Co., Oct. 12, 1938)
Cass County $1.05

WEST TEXAS and NEW MEXICO

(a) (For effective dates, see footnote)

	Humble	Stano-lind	Shell	Texas Co. Sinclair (c)
Below 20°	$0.53	....	$0.53	....
20-20.9	.55	....	.55	....
21-21.9	.57	....	.57	....
22-22.9	.59	$0.67	.59	....
23-23.9	.61	for	.61	....
24-24.9	.63	oil	.63	....
25-25.9	.65	Below	.65	$0.65
26-26.9	.67	26°.	.67	.67
27-27.9	.69	.69	.69	.69
28-28.9	.71	.71	.71	.71
29-29.9	.73	.73	.73	.73
30-30.9	.75	.75	.75	.75
31-31.9	.77	.77	.77	.77
32-32.9	.79	.79	.79	.79
33-33.9	.81	.81	.81	.81
34-34.9	.83	.83	.83	.83
35-35.9	.85	.85	.85	.85
36-36.9	.87	.87	.87	.87
37-37.9	.89	.89	for	for
38-38.9	.91	.91	oil	oil
39-39.9	.93	.93	36° &	36° &
40 & above	.95	.95	above.	above.

Posted by Magnolia Petroleum Co.
(Effective Oct. 12, 1938 in West Texas; Oct. 15, 1939 in Lea County, N. Mex.)

	West Texas	N. Mex.		West Texas	N. Mex.
Below 25	$0.63	$0.63	33-33.9	$0.81	$0.81
25-25.9	.65	.65	34-34.9	.83	.83
26-26.9	.67	.67	35-35.9	.85	.85
27-27.9	.69	.69	36-36.9	.87	.87
28-28.9	.71	.71	37-37.9	.89	for
29-29.9	.73	.73	38-38.9	.91	oil
30-30.9	.75	.75	39-39.9	.93	36 &
31-31.9	.77	.77	40 & over.	.95 above	
32-32.9	.79	.79			

Note: Magnolia's West Texas postings are in Crane, Glasscock, Howard, Mitchell, Upton and Winkler counties.

Pecos County, West Texas
(Posted by Humble Aug. 11, 1939 and Shell, Aug. 29 '39)
Pecos $0.78
Yates Shallow Pool (Shell only) ..... .65

Posted by Sinclair Prairie Oil Marketing Co.
(Effective Aug. 31, 1939)
Eddy county, N. Mex. $0.77

(a) Effective Aug. 11, 1939 by Humble; Shell Oil, Aug. 29, 1939; by The Texas Co., Oct. 12, 1938; Stanolind, Aug. 29, 1939; Sinclair Prairie, Aug. 31, 1939.

(c) Texas Co. posts $0.65 for below 26; Sinclair Prairie, $0.63 for below 25.

Note: Humble's postings are in these counties: Andrews, Crane, Crockett, Ector, Gaines, Glasscock, Howard, Reagan, Upton, Winkler and Yoakum, West Texas; and Lea county, N. Mex.; Shell, in Crane, Ector, Glasscock, Howard, Upton, Winkler, Yoakum, Lea; Stanolind in Hendrick and Henderson field, Winkler county; Texas Co. in Ward, Winkler and Lea.

Posted by Continental Oil Co.
(Effective Oct. 11, 1938)
Artesia, Jackson and Maljamar pools, New Mexico; gravity schedule beginning with below 29, at $0.61; 29-29.9, at $0.63; plus 2c differential for each gravity, up to 40 & above, at $0.85.

COLORADO

Posted by Continental Oil Co.
(Effective Oct. 11, 1938)
Ft. Collins and Wellington

Below 29	$0.81	35-35.9	$0.95
29-29.9	.83	36-36.9	.97
30-30.9	.85	37-37.9	.99
31-31.9	.87	38-38.9	1.01
32-32.9	.89	39-39.9	1.03
33-33.9	.91	40 & above	1.05
34-34.9	.93		

Canon City and Florence, Col. $0.90

SOUTH AND SOUTHWEST TEXAS

All Shown Below Posted by Humble Oil & Refining Co.
(Effective Aug. 11, 1939)
Carroll, Clark, Darst Creek, Hilbig, Salt Flat and Zoboroski crudes $0.96
Van crude $0.93
Conroe $1.27

(Effective Oct. 2, 1939)
Flour Bluff and Jim Wells County $1.23
(Effective Sept. 14, 1939)
Hardin, Liberty county $1.10

Oct. 12, '38, Magnolia posted $0.96 in Darst Creek; $0.87 in Luling; $0.99 in Lytton Springs; $1.14 for Cleveland, and $1.02 in Hardin, both in Liberty county, Tex.

Oct. 12, '38, The Texas Co. posted $0.96 in Darst Creek.

(Continued on next page)

CRUDE OIL MARKETS

(*Continued from preceding page*)

***Anahuac-Dickinson**
(Effective Oct. 2, 1939)

Below 20°	$0.81	30-30.9	$1.03
20-20.9	.83	31-31.9	1.05
21-21.9	.85	32-32.9	1.07
22-22.9	.87	33-33.9	1.09
23-23.9	.89	34-34.9	1.11
24-24.9	.91	35-35.9	1.13
25-25.9	.93	36-36.9	1.15
26-26.9	.95	37-37.9	1.17
27-27.9	.97	38-38.9	1.19
28-28.9	.99	39-39.9	1.21
29-29.9	1.01	40 & above	1.23

*Anahuac-Dickinson includes Cedar Point, Fairbanks, Gillock, Hull, Pierce Junction and Raccoon Bend (shallow sand) and Turtle Bay.

Raccoon Bend (Deep sand crude) Tomball and Satsuma
(Effective Aug. 11, 1939)

22-22.9	$0.95	32-32.9	$1.15
23-23.9	.97	33-33.9	1.17
24-24.9	.99	34-34.9	1.19
25-25.9	1.01	35-35.9	1.21
26-26.9	1.03	36-36.9	1.23
27-27.9	1.05	37-37.9	1.25
28-28.9	1.07	38-38.9	1.27
29-29.9	1.09	39-39.9	1.29
30-30.9	1.11	40 & above	1.31
31-31.9	1.13		

Dec. 3, 1938, Magnolia posted above price and gravity schedule in Tomball. Effective Aug. 29, 1939, Stanolind met Humble in Tomball, except that Stanolind's schedule begins with below 29 at $1.07.

LOUISIANA-ARKANSAS
Posted by Standard Oil Co. of Louisiana
(†) (For effective dates, see footnote)

	*N. La.-Ark. Sweet	Bunkie-Eola, La.	*South La. Sour	*Ark. Sour	Baton Rouge-University
Below 20°					$0.79
20-20.9	$0.73	$0.83	‡$0.74	$0.63	.82
21-21.9	for	for	.77	for	.85
22-22.9	oil	oil	.80	oil	.88
23-23.9	Below	Below	.83	Below	.91
24-24.9	25°	25°	.86	25°	.94
25-25.9	.75	.85	.89	.65	.97
26-26.9	.77	.87	.92	.67	1.00
27-27.9	.79	.89	.94	.69	1.02
28-28.9	.81	.91	.96	.71	1.04
29-29.9	.83	.93	.98	.73	1.06
30-30.9	.85	.95	1.00	.75	1.08
31-31.9	.87	.97	1.02	.77	1.10
32-32.9	.89	.99	1.04	.79	1.12
33-33.9	.91	1.01	1.06	.81	1.14
34-34.9	.93	1.03	1.08	.83	1.16
35-35.9	.95	1.05	1.10	.85	1.18
36-36.9	.97	1.07	1.12	.87	1.20
37-37.9	.99	1.09	1.14	.89	1.22
38-38.9	1.01	1.11	1.16	.91	1.24
39-39.9	1.03	1.13	1.18	.93	1.26
40 & above	1.05	1.15	1.20	.95	1.28

(Effective Aug. 30, 1939)

Smackover, Ark.	$0.73
Cotton Valley Distillate	$1.20

*N. La.-Ark. Sweet includes Caddo, Cotton Valley, Cross Lake, De Soto, Haynesville, Homer, Rodessa, Sabine and Sligo, La. crudes, and Miller county, Ark. S. La. Sour includes Choctaw, Darrow, N. Crowley, Roanoke and St. Martinsville. S. Ark. Sour includes Buchner, Magnolia and Village pools.

†N. La.-Ark. Sweet crude and S. La. Sour effective Aug. 30, 1939, except Cross Lake, La., Sept. 7, Baton Rouge-Univ., Sept. 11, and Bunkie and Eola, Oct. 23, 1939; and Ark. Sour, Sept. 13, 1939.

‡For Below 21°.

Effective Sept. 8, 1939, Gulf Refg. Co. met S. O. La's. N. La.-Ark. Sweet prices in Bull Bayou, Caddo, Crichton, De Soto, Haynesville, Homer, and El Dorado.

Posted by Arkansas Fuel Oil Corp.
(Effective Jan. 28, 1937)

Urania, La.	$1.02

Posted by Continental Oil Co.
(Effective Oct. 11, 1938)

Tepetate and Ville Platte, La.	$1.03

(Effective Jan. 1, 1939)
Abbeville, La.

Below 36	$0.92	38-38.9	$0.98
36-36.9	.94	39-39.9	1.00
37-37.9	.96	40 & above	1.02

Posted by Caddo Crude Oil Purchasing Corp.
(Effective Aug. 14, 1939)

Allison area, Shreveport field	$0.95

Lisbon, N. La.
(Effective Sept. 14, 1939)

27-27.9	$0.66	32-32.9	$0.76
28-28.9	.68	33-33.9	.78
29-29.9	.70	34-34.9	.80
30-30.9	.72	35 & above	.82
31-31.9	.74		

Lisbon prices met by Gulf, Sept. 14.

Note: S. O. Louisiana prices in all La.-Ark. fields, effective Oct. 5, 1938, are on 100% tank table basis.

GULF COASTAL FIELDS
(a) (For effective dates, see footnote)

	Continental Humble Sinclair Stanolind	Refugio Crude (Humble, Continental)	Texas Co.	Shell
Below 20	$0.86	$0.91	$0.86	(b)$0.79
20-20.9	.88	.93	.88	.81
21-21.9	.90	.95	.90	.83
22-22.9	.92	.97	.92	.86
23-23.9	.94	.99	.94	.89
24-24.9	.96	1.01	.96	.92
25-25.9	.98	1.03	.98	.95
26-26.9	1.00	1.05	1.00	.98
27-27.9	1.02	1.07	1.02	1.00
28-28.9	1.04	1.09	1.04	1.02
29-29.9	1.06	1.11	1.06	1.04
30-30.9	1.08	1.13	1.08	1.06
31-31.9	1.10	1.15	1.10	1.08
32-32.9	1.12	1.17	1.12	1.10
33-33.9	1.14	1.19	1.14	1.12
34-34.9	1.16	1.21	1.16	1.14
35-35.9	1.18	1.23	for oil	for oil
36-36.9	1.20	1.25	for oil	for oil
37-37.9	1.22	1.27	34° & above.	34° & above.
38-38.9	1.24	1.29		
39-39.9	1.26	1.31		
40 & above	1.28	1.33		

(*Continued in next column*)

(a) Effective Oct. 2, 1939 by Continental, Humble and Texas Co.; Oct. 3, 1939 by Sinclair and Stanolind; Aug. 29, 1939 by Shell. Stanolind's lowest grade is below 21, at $0.88. Refugio, effective Oct. 2, '39 by Humble.

(b) Shell posts these prices in Iowa district, Black Bayou and White Castle, La.; prices in Iowa district have 2 lower grades: below 18, at $0.75, 18-18.9, $0.77; and 19-19.9, is $0.79.

Note: Humble's Gulf Coast prices apply in these Texas fields: Amelia, Clear Lake, Goose Creek, Mirando which includes Duval, Jim Hogg, Webb and Zapata counties and Heyser and Placedo fields; Mykawa, Sugarland, Thompsons and Webster.

Humble's prices in Refugio include crudes purchased in Saxet, East White Point, Greta, O'Connor-McFadden, Taft, Plymouth and Tom O'Connor fields.

Stanolind's prices apply in High Island and Spindletop; also in Clinton, Hastings and South Houston, where, effective Jan. 1, 1940, lowest grade is below 21° at $0.88; rest of schedule same as other Gulf Coast. Magnolia posts Mirando, effective Oct. 2, same prices as Humble. Texas Co.'s prices are in Texas and La., Gulf Coast; its prices on Refugio are same as Humble's up to 28 gravity; 28 & above, $1.09; on Duval-Mirando same as Humble's up to 28; 28 & above, $1.04; it posts Golden Meadow, La., 24-30 grav., $0.90, plus 2c differential, to 40 & above, $1.10.

Posted by Shell Oil Co., Inc.
(Effective Aug. 29, 1939)

Gibson field, Terreborne Parish, La.	$1.04

ROCKY MOUNTAIN FIELDS
Posted by Stanolind Oil & Gas Co.
(Effective Oct. 11, 1938)

Salt Creek, (except Tensleep crude), Midway and Dutton Creek, Wyo., same schedule as Stanolind posts in Oklahoma-Kansas, ranging from $0.86 to $1.10, which see under Mid-Continent crude on previous page.

Tensleep, Salt Creek field	$0.646
Hes, heavy	0.92
Elk Basin, light	0.90
Grass Creek, light	0.90
Frannie light	0.55
Grass Creek, heavy	0.40
Hamilton Dome, Wyo.	0.35
Frannie heavy	0.42

Posted by Ohio Oil Co.
(Effective Oct. 11, 1938)

Elk Basin, Wyo.	$0.90	Rock Creek	1.00
Grass Creek, light	0.90	Lance Creek	0.77
Dry Creek, Mont.			0.92

(Effective May 1, 1938)

Grass Creek, heavy	$0.50

(Effective Nov. 16, 1937)

Sunburst, Mont.	$0.90

Posted by Continental Oil Co.
(Effective Oct. 11, 1938)

Cat Creek, Mont.	$1.10
Big Muddy, Wyo.	0.98
Lance Creek, Wyo.	0.77

CALIFORNIA, *Posted by Standard Oil of California*

All gravities above those quoted take highest price offered in the field. Prices effective Feb. 26, 1936, except Huntington Beach, Playa del Rey, Santa Fe Springs, Kern Front, Signal Hill (Long Beach) effective March 7, 1936; Elk Hills effective June 22, 1936; Lakeview Area, Aug. 19, 1936; El Segundo and Wilmington, Oct. 15, 1937; Greeley-Canal, July 9, 1938; Montebello, Aug. 11, 1939. Coles Levee-Richfield Western, Oct. 1, 1939.

Gravity	Signal Hill Long Beach El Segundo †Wilmington	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda Brea Canon	Athens Rosecrans	Dominguez	Torrance	Richfield	Whittier East Coyote (La Habra)	Montebello	West Coyote Hills	Santa Fe Springs	‡Mountain View Newhall and others	Elk Hills	Buena Vista Hill Midway-Sunset Lakeview Area	Greeley-Canal (Kern County)	Lost Hills	Coalinga	Wheeler Ridge	Coles-Levee Richfield Western	Santa Maria Val. (Union Oil, Sept. '39
14-14.9	$0.80	$0.79	$0.74	$0.78	$0.79	$0.80	$0.76			$0.80	$0.76	$0.76	$0.77	$0.78		$0.70	$0.70	$0.70		$0.70	$0.70			$0.42
15-15.9	.80	.79	.74	.78	.79	.80	.76			.80	.76	.76	.77	.78		.70	.70	.70		.70	.70			.44
16-16.9	.80	.79	.74	.78	.79	.80	.76			.80	.76	.76	.77	.78		.70	.70	.70		.70	.70			.45
17-17.9	.80	.79	.74	.78	.81	.80	.76			.80	.76	.76	.77	.78		.70	.70	.70		.70	.70			.46
18-18.9	.80	.79	.74	.78	.84	.80	.78			.82	.76	.76	.77	.78		.70	.70	.70		.70	.70			
19-19.9	.82	.79	.74	.82	.87	.84	.81			.85	.76	.78	.77	.78		.70	.74	.74		.74	.71	.70		
20-20.9	.85	.79	.74	.85	.90	.88	.84			.88	.78	.82	.77	.80		.70	.78	.78		.78	.72	.70		
21-21.9	.88	.79	.74	.89	.93	.93	.88			.91	.80	.85	.77	.84	.78	.73	.82	.82		.82	.74	.70		
22-22.9	.92	.82	.74	.92	.96	.98	.92			.93	.84	.89	.79	.88	.78	.77	.87	.87		.86	.78	.72		
23-23.9	.95	.86	.77	.96	.99	1.02	.96	.84	.79	.96	.88	.93	.82	.92	.78	.80	.92	.92		.90	.82	.76		
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	.99	.91	.96	.85	.96	.82	.84	.97	.97		.94	.86	.79		
25-25.9	1.03	.95	.82	1.03	1.05	1.11	1.03	.93	.83	1.02	.95		.89	.99	.86	.88	1.01	1.01		.98	.90	.83		
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	1.05	.98		.93	1.03	.90	.91	1.06	1.06		1.02				
27-27.9	1.10	1.05	.88	1.11	1.12		1.10	1.03	.88		1.02		.97	1.06	.95	.95	1.10	1.10	$.91	1.06			$1.00	
28-28.9	1.14	1.10	.90	1.14	1.15		1.14	1.07	.90		1.06		1.01	1.10	.99	.99	1.15	1.15	.94	1.10			1.03	
29-29.9	1.17	1.15	.93	1.18	1.18		1.17	1.12	.93		1.09		1.06	1.14	1.03	1.02	1.20	1.20	.98	1.14			1.06	
30-30.9	1.21	1.19	.95	1.22	1.21		1.21	1.17	.95				1.10	1.17	1.08	1.06	1.25	1.25	1.02	1.18			1.09	
31-31.9					1.24		1.24	1.22	.97				1.14	1.21	1.12	1.09	1.29	1.29	1.06				1.13	
32-32.9		*Elwood Terrace			1.27		1.27	1.27	1.00				1.18	1.25	1.16	1.13	1.34	1.34	1.09	Kettleman Hills			1.16	
33-33.9		1.28						1.32					1.22	1.28	1.20	1.17	1.38	1.38	1.13	1.19			1.19	
34-34.9		1.32						1.37					1.26	1.32	1.25	1.20			1.17	1.23			1.22	
35-35.9		1.35						1.42					1.30		1.29				1.20	1.27			1.26	
36-36.9		1.39						1.46					1.34		1.33				1.24	1.31			1.29	
37-37.9		1.43						1.51					1.38		1.37				1.28	1.35			1.32	
38-38.9								1.56					1.42		1.42				1.31	1.39			1.35	
39-39.9								1.61					1.47						1.35	1.43			1.39	
40-40.9								1.66					1.51						1.39				1.42	
41-41.9													1.55						1.43				1.45	
42-42.9													1.59						1.46				1.48	
43-43.9													1.63						1.50				1.51	
44-44.9													1.67						1.54				1.55	
45-45.9													1.71						1.57				1.58	
46-46.9													1.75						1.61				1.61	
47-47.9																			1.65					
48-48.9																			1.68					

F. O. B. Standard Pipe Line

*F. o. b. ship.

‡Mountain View postings begin at $0.70 for 19-19.9; Newhall and others, which include McKittrick, Kern River, Kern Front and Round Mountain begin with 14-14.9 and end with 19-19.9, all posted at $0.70.

†Wilmington prices differ on gravities below 18.9. Prices are: 14-16.9, $0.75; 17-17.9, $0.77; and 18-18.9, $0.79; rest of schedule same as Signal Hill.

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United States Leads In Tanker Building

CLEVELAND, Dec. 11.—Steam and motor oil tankers of 1000 tons gross and upward under construction in the world on June 30 totaled 71, according to Lloyd's Register. Total tonnage represented was 634,665.

The U. S. ranked first with 13 vessels having total tonnage of 125,448. Eleven tankers of 99,448 tons were steam driven, and 60 of 535,217 tons motor driven.

Following table shows number of vessels for each nation and tonnage:

	Number	Tons
United States	13	125,448
Sweden	13	120,500
Great Britain and Ireland	11	96,210
Germany	8	70,862
Italy	7	61,775
Holland	6	50,750
Denmark	4	36,400
France	2	28,400
Japan	4	24,100
Spain	2	12,220
Danzig	1	8,000

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Should be saleable to service stations and bulk plants. Address Box 179, NATIONAL PETROLEUM NEWS.

WEST COAST REPRESENTATION OFFERED—Ex-oil jobber moving to Pacific coast will build sales force to market oils and grease for refinery offering branded products. Edward W. James, Talcott Bldg., Rockford, Ill.

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FOR SALE—Two bulk plants, five owned service stations, all located on main highways, one a super service station, total gallonage near five hundred thousand, write Independent Oil Company, Doland, S. Dak.

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"STRICTLY PERSONAL"

L. A. Stewart, Danville, Ill., owner of Prairie States Oil Co., gave N.P.N's. Los Angeles office a report about having seen a special Hollywood preview of "Gone With The Wind." And it's well worth seeing, according to Mr. Stewart, who was visiting his son and daughter in Los Angeles.

* * *

Reubin G. Lovell, development engineer of the Hancock Oil Co. of California, says his progress as a "professor" is not so bad, and attributes it to the fact that "I look like a preacher and talk like a mule skinner." Mr. Lovell teaches practical petroleum engineering at the Long Beach Polytechnique High School.

* * *

Capt. A. A. Nichoson, personnel director of The Texas Co., Los Angeles, gave an interesting talk this week on "Business Looks Ahead." He spoke under the auspices of the National Association of Manufacturers, and drew conclusions from 10 years' study of industrial economics.

* * *

When **H. G. Lyman,** who has been granted a leave of absence from his position as manager of industrial sales for the Pennzoil Co. of California, arrives in the Philippine Islands, he will take up his new duties as technical engineer of the Marsman Trading Corporation, which has been granted exclusive rights to distribute Pennzoil products in the Islands. Accompanying Mr. Lyman will be his wife and 22-year-old daughter. En route to the Philippines from Los Angeles, Mr. Lyman will also call on Pennzoil distributors in Japan, China, and Hong Kong.

H. G. Lyman

* * *

A. Paap, Standard Oil Co., Amsterdam, Holland, is stopping at the Los Angeles Mayan Hotel with Mrs. Paap. The Holland oil man is here on business.

* * *

Oliver C. Field, oil operator of Palos Verdes Estates, and Mrs. Field, were among passengers sailing this week on the MATSONIA for Honolulu.

* * *

Sherman McFedries and **Jack Courtney,** Union Oil Co. of California public relations men, are in an "almost too busy to talk" mood these days. The reason: They are idea-hunting for means of publicizing Union's fiftieth anniversary, which was something brought in Jan. 1 by the little boy, perennially unclad.

* * *

L. B. McCammon, for the past several years in charge of the sales department of the Ohio Oil Co. in the southwest, with headquarters in Tulsa, has been transferred to the company's offices at Robinson, Ill. He and Mrs. McCammon, have been active in Y.M.C.A., Boy Scout and Girl Scout work in Tulsa. They were honor guests at the eighth annual Y.M.C.A. New Year's day open house.

* * *

Leif H. Olson, partner in the Olson Drilling Co., Tulsa, Okla., has moved to Fort Worth, Tex. where he will open a Texas office for the company.

* * *

A. S. Russell was elected a vice president of the Standard Oil Co. of California this week. He fills the vacancy caused when **R. W. Hanna** resigned. Mr. Russell first entered Standard's employ in 1911 at the El Segundo manufacturing department. Later he served at the Bakersfield and Richmond refineries. In 1918, he became chief engineer of the manufacturing division, and in 1931 became a member of the board of directors.

* * *

Mrs. Fern Anthony has been elected Secretary-Treasurer of the Hiawatha Supply Co. of Harrison, Ohio, to succeed her late husband, **W. H. (Buck) Anthony,** who died suddenly several months ago.

* * *

James O'Connell, oil jobber of Belle Plaine, Kansas, who had been laid low by a serious illness for the past three months, is able to be up now and is on the road to recovery.

* * *

H. C. Weiss, president of Humble Oil & Refining Co., was one of the principal speakers recently at the pre-inaugural installing **Dr. Homer P. Rainey** as president of the University of Texas.

* * *

W. F. Prizer, retiring after 37 years with Socony-Vacuum Oil Co., was guest of honor recently at a dinner given by his associates in the Lubricating Department of the company at the Essex Country Club, West Orange, New Jersey. **George B. Palmer,** manager of the Engine Builders' Division, was toastmaster, and **William H. Correa,** general manager, Lubricating Department, presented a service emblem and a certificate of service to Mr. Prizer.

* * *

John A. Brown, president of Socony-Vacuum Oil Co., has accepted the chairmanship of the Greater New York Fund's 1940 campaign. Announcement was made at a meeting Jan. 4 of the fund's executive committee. Mr. Brown was presented by **Winthrop W. Aldrich,** board chairman of Chase National Bank. The Greater New York Fund raised $3,454,634 in 1939 for distribution to various charitable and welfare organizations.

John A. Brown